

ABSTRACT

Title of Document: CONDOM USE IN OLDER AFRICAN AMERICANS: AN EXPLORATORY STUDY

Ina Ananda Ramos, PhD, 2012

Directed By: Dr. Sharon M. Desmond, Associate Professor
Department of Behavioral and Community Health

The purpose of this mixed methods exploratory study was to examine perceptions regarding condom use and sexual intercourse among African Americans 50 to 65 years of age, specifically attitudes, norms, self-efficacy and barriers regarding condom use behavior. There were three study phases: 1) a pilot study of the survey instrument (N=31), 2) an on-line survey (N=175), and 3) post survey explanatory interviews (N=10). The online survey contained items from the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS) (Basen-Enquist et al., 1999). Pilot study data indicated the online survey was understandable, acceptable, readable and appropriate for use by this sample of African Americans. Factor analyses of the survey items yielded similar constructs to the original SRBBS with seven of eight scales demonstrating internal consistency; Cronbach's alpha reliabilities ranged from .49 to 1.0. Logistic regression models found two independent variables increased the likelihood of condom use (condoms should be used even if

people know each other well and friends feel condoms should be used even if pregnancy isn't possible) and two decreased the likelihood of condom use (friends feel you should use condoms even if people know each other well, and using condoms would be a hassle). A logistic regression model of significant independent variables found that provider speaking to patients about safer sex and male gender increased condom use, while being married and lower educational level decreased condom use behavior. Post-survey interviews, where participants (N = 10) were asked to elaborate on study findings, yielded six themes (the importance of trust and relationships, lack of knowledge, attitudes about condom use, sexual activity, health care providers, and friends opinions) that further explained statistical findings. Findings from this study have the potential to reduce the spread of HIV/STDs in this population through the use of educational programs that include empowerment and risk reduction components. Additionally, health care providers can potentially play a key role in these efforts and should be trained on how to communicate effectively with older adults around sexual health.

CONDOM USE IN OLDER AFRICAN AMERICANS: AN EXPLORATORY
STUDY

By

Ina Ananda Ramos

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Advisory Committee:

Dr. Sharon M. Desmond, Associate Professor, Chair
Dr. Elaine A. Anderson, Professor, Dean's Representative
Dr. Robin Sawyer, Associate Professor
Dr. Edith Swann, Special Committee Member
Dr. Min Qi Wang, Professor

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Dedication

This dissertation is dedicated to my loving husband Selvin Ramos and our daughter Sadiyah Imani Ramos. I want to thank you both for being so supportive of me during this process, for giving me the courage and strength to finish whenever I got discouraged and for your willingness to share my time during this process. I know it was not easy living with me over the past year but in the words of Dora the Explorer ‘we did it’. I hope I have made you both proud!! Love you both dearly....Mommy!

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Chapter 1: Introduction

1.1 Statement of the Problem

The increasing rates of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) in adults 50 and older is a growing problem evidenced by a joint statement from the directors of the National Institute of Allergy and Infectious Diseases (NIAID), the National Institute on Aging (NIA), and the Office of AIDS Research announcing the third annual National HIV/AIDS and Aging Awareness Day on September 18, 2010 (National Institutes of Health [NIH], 2010). Many HIV-infected individuals are living beyond their fifties as a result of available antiretroviral drugs that suppress the replication of the virus. In 2006, an estimated 25 percent of people living with HIV in the United States were age 50 and older (Centers for Disease Control and Prevention [CDC], 2008a). In 2008, an estimated 16 percent of all new HIV diagnoses occurred in people ages 50 and older in the 37 states with confidential name-based reporting (CDC, 2010a).

HIV disease progresses more quickly in older adults compared with those younger, and antiretroviral therapy restores immune system cells less effectively, placing this older group at greater risk for illness and death from HIV infection than younger people who are infected for comparable periods of time. Further complicating matters, many of the signs and symptoms of HIV in older adults can be mistaken for conditions associated with aging, thereby delaying the diagnosis of HIV infection and the start of appropriate therapy. In the United States, nearly one-fifth of individuals' ages 55 and older living with HIV in 2006 did not know they were infected (Campsmith et al., 2010).

As a consequence of both late HIV diagnosis and greater risk of progressing to AIDS, adults ages 50 and older are more likely than any other age group to be diagnosed with AIDS within a year of their HIV diagnosis, according to data gathered between 1996 and 2005 (CDC, 2009a).

The number of HIV/AIDS cases is rising in older people of color across the country (NIA, 2009). More than half of all people with HIV/AIDS are African American or Hispanic. The face of people living with HIV has evolved over time; one of the fastest growing groups dealing with HIV is blacks ages 50 and older (CDC, 2008b). In 2005, the rates of HIV/AIDS among people 50 and older were 12 times as high among blacks (51.7 per 100,000) when compared to whites (4.2 per 100,000) (Linley, Hall, An, et al., 2007).

The number of cases of HIV/AIDS for older women has also been growing over the past few years. The rise in the number of cases in women of color age 50 and older has been especially steep; the rate of infection among older African American women is 16 times the rate found for Caucasian women of similar ages and almost twice that for Latinos of similar ages (CDC, 2005). Furthermore, HIV is the fifth leading cause of death among older African American women (CDC, 2005). Although African American women 50 and older comprise approximately 11% of the total female population, they account for more than 50% of AIDS cases and more than 65% of HIV infections in older women; similar to the rates of African American women ages 25-44 (CDC, 2002).

1.1.1 Sexual Risk/Transmission

Despite misconceptions and myths, many older people enjoy and have an active sex life (Ernst, Hufnagle, Karpiak, & Shippy, 2008; Lindau et al., 2007; Tomaszewski &

Junius, n.d.). Sexual contact is reported as the most frequent transmission route of HIV among older adults (Chiao, Ries, & Sande, 1999; Williams & Donnelly, 2002), clearly indicating sexual activity and sexual risk behaviors among this population. In a study of African American women 50 and older living in the rural south (N = 181), 60% reported at least one HIV risk behavior (e.g. more than one sex partner in the past 5 years; sex partner having sex with other women; sex partner having sex with men; exchanging sex for an item of value; and sex with someone HIV-positive) (Winningham et al., 2004). In a national study of older women between 40 and 75 years of age (N = 624), 13% reported they did not know if their primary sex partner engaged in any HIV-risk behaviors (Binson, Pollack, & Cantina, 1997). Additionally, despite remaining sexually active, older adults are one-sixth as likely to use condoms during sex and one fifth as likely to be tested for HIV compared to younger adults (Mack and Ory 2003; Stall & Catania, 1994). Older adults beyond their childbearing years may not feel susceptible to sexually transmitted diseases (STDs), as they tend to associate them with younger generations (AIDS InfoNet, 2011; Williams & Donnelly, 2002). Postmenopausal women who do not require contraception may also be more reluctant to use condoms than women who need contraception (NIA, 2009), particularly as condom use can be difficult for their older male partners who may be unfamiliar with or unaccepting of condoms or have problems associated with erectile dysfunction (Emlet & Poindexter, 2004).

Sexually active older women may be at greater risk of HIV transmission than older men for several reasons (Lindau, Leitsch, Lundberg, & Jerome, 2006; Linsk, 2000). The risk of HIV transmission among older women is exacerbated during intercourse due to normal aging changes including decreased vaginal lubrication and estrogen

deficiencies. These physiological changes cause thinning of the vaginal walls, which allows for microscopic tearing during sexual intercourse and thereby providing a direct route for HIV transmission (Emlet & Poindexter, 2004; Moore & Amburgey, 2000; Utz, 2005). Other risk factors for older adults are largely the same as for younger people and include unprotected sex, drug use, and lack of knowledge about the way in which HIV/AIDS is transmitted. Although some of these risks may be at lower rates in older adults (e.g. unprotected sex), identification of these risks may also be less likely because physicians do not often initiate discussion of HIV testing with older adults (Lindau et al., 2006).

1.1.2 Prevention Challenges

Traditionally, HIV/AIDS prevention efforts have been predominately geared toward teens and adults between the ages of 18 and 45 (Orel, Spence, & Steele, 2005). While these efforts have been somewhat successful, they have left a cohort of individuals (those ages 50 and older) increasingly vulnerable to mixed messages and incomplete health evaluations that do not address their sexuality and/or level of sexual activity (Henderson et al., 2004). Although the number of HIV/AIDS cases among people 50 and older continue to rise (NIA, 2009), this cohort is often overlooked, (Genke, 2000), the “unserved, unseen, and unheard” (Emlet & Poindexter, 2004). An evaluation of statewide HIV/AIDS prevention materials for older individuals found that available HIV/AIDS prevention literature was not appropriately tailored for this cohort nor did it meet their needs (Orel et al. 2005). The materials failed to provide the information needed to assist in reducing the incidence of HIV/AIDS in this population.

Research has also found that older adults are less knowledgeable about HIV/AIDS, its transmission and its signs and symptoms and therefore less likely to protect themselves when compared to younger populations (Henderson et al., 2004; Maes & Louis, 2003). When comparing knowledge of HIV/AIDS by race, older African Americans and Latinos scored lower than older Caucasians on knowledge items (Rose, 1996). Others may not perceive themselves as at risk for HIV so they do not use condoms, nor do they get tested for HIV (Henderson et al., 2004; Lindau et al., 2006). To further exacerbate the issue, many health care professionals also underestimate older patients' risk for HIV/AIDS, thereby missing opportunities to deliver prevention messages or offer HIV testing (Boskey, 2011; Lindau, et al., 2007). Lindau and colleagues (2007) looked at sexual activity in older adults (N = 3005) and found that 73% of adults ages 57 to 64, 53% ages 65 to 74, and 26% ages 75 to 85 were sexually active, but a much smaller percentage have discussed sex with a physician since reaching age 50 (38% men and 22% women).

With older people being less likely to use condoms because they do not view themselves to be at risk and/or because they were not taught that condoms should be part of their sex lives (Boskey, 2011), the risk of STD or HIV transmission increases further. In addition to HIV/AIDS, other STDs are a problem for older people as they often experience more severe consequences than their younger counterparts, including a weakened immune system thereby increasing the risk of transmitting or contracting STDs or HIV. Because many women live longer than men, and because of the rising divorce rate, many widowed, divorced, and separated women are dating today (Utz, 2005). Many older adults may be at risk for HIV infections because they do not know how HIV/AIDS

is contracted (AIDS InfoNet, 2011).

Among older men who have sex with men (MSM), denial has been identified as a contributing factor to their HIV risk (Grossman, 1995). Being “on the down low”— the phenomenon of African American men living in stable heterosexual relationships who engage in extra relationship sexual activity with other men (King, 2004) — is a perceived barrier for women to HIV prevention. Women, who are unknowingly involved in relationships with “down low men”, are at increased risk of contracting HIV due to the indirect exposure to multiple partners (Whyte IV, Whyte & Cromier, 2008).

1.1.3 Past Research on HIV in Older Adults

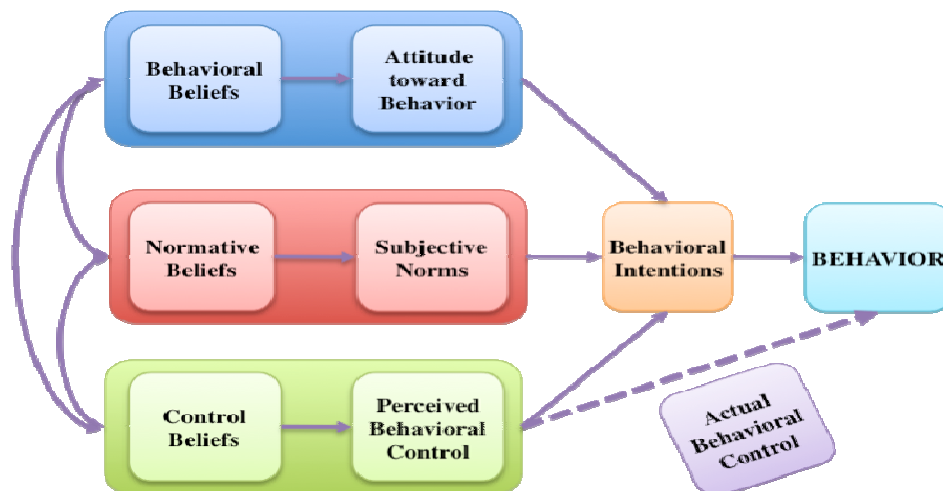
Akers, Bernstein, Doyle and Corbie-Smith (2007) conducted a study with older women to determine the predictors and prevalence of HIV testing, and to examine how age and testing history impacted their HIV risk. Of the 488 older women (ages 50 and older) who participated in the study, 73% were African American, 65% had poor HIV knowledge, and 75% had low perceived risk of HIV. Only 35% of participants had ever been tested for HIV and the majority (75%) stated their health care providers had never suggested HIV testing to them. In another study conducted with older adults (N = 1,974) examining sexual behavior and condom use, researchers reported that two-thirds of adults 50 and over did not use condoms (Schick, et al., 2010). With condom use serving as one of the primary methods to prevent HIV transmission and infection, it is important to understand the views of older African Americans toward sexual intercourse and condom. Preliminary focus group (N = 3) research with older African American women (Ramos, Howard, & Atkinson, 2009) cited being “on the down low” as a prevention issue for older women due to the social stigmas surrounding HIV/AIDS and the ‘down low’ man.

The mere concept of being involved with a ‘down low’ man can be a cause for alienation in one’s social group; therefore, many women would prefer to live in ignorance rather than ask their male partners to get tested or even to test themselves. The Ramos et al. (2009) study population (N = 20), also indicated a need for inclusion of older men in HIV prevention research efforts; hence this study collected data from both older African American men and women.

1.1.4 Theoretical Framework

Three constructs, attitudes, norms and perceived behavioral control were used as the theoretical framework for this research study. These constructs originate from the Theory of Planned Behavior (TPB) (Figure 1.1), which was developed by Ajzen (1988) to examine relationships among an individual’s beliefs, attitudes, subjective norms, perceived behavioral control, intentions, and behavior. The theory purports that *behavioral intention* is influenced by a person’s positive or negative evaluation toward performing the behavior in question (*attitude*), by beliefs about social pressure to perform or not perform the behavior (*subjective norm*), and by beliefs about whether or not they can perform a particular behavior (*perceived behavioral control*) (Ajzen, 1991).

Figure 1.1 Theory of Planned Behavior



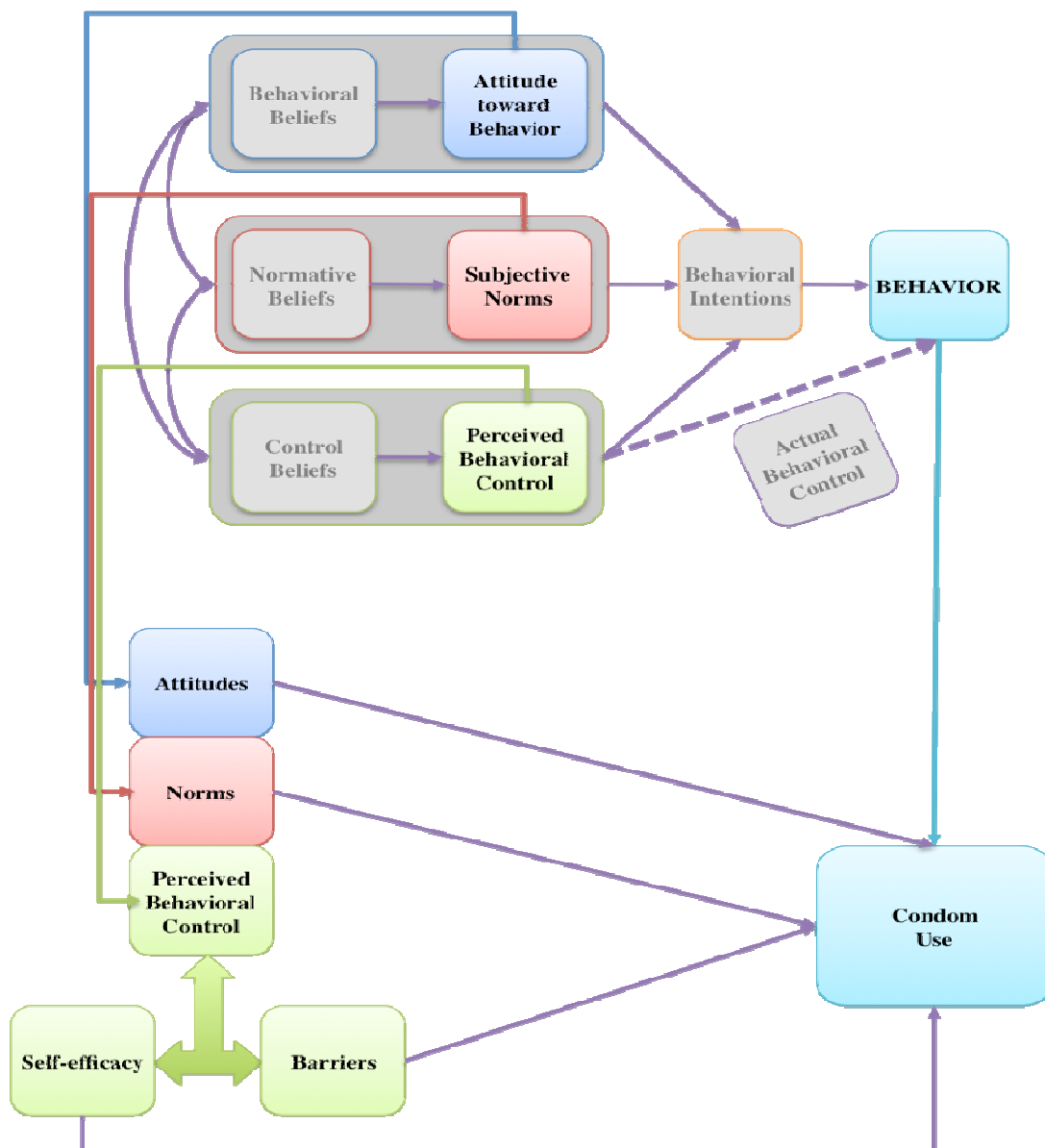
Attitudes encompass the perceived consequences of a behavior weighted by the value an individual places on the consequences (positive or negative). Subjective norms consist of the attitudes of important persons (e.g. friends, clergy and community leaders) toward the behavior, weighted by the individual's motivation to comply with these important others. While actual behavioral control includes one's ability, resources, and opportunities to perform a specific behavior, perceived behavioral control (PBC) refers to a persons' *perception* of the ease or difficulty of performing the behavior of interest (Ajzen, 1991, pg. 183). Directly related to PBC is self-efficacy or confidence in one's ability to achieve a given goal (Bandura, 1986) and perceived barriers, a person's *estimation* of the level of challenge (e.g. social, personal, environmental, or economic obstacles) associated with a specified behavior (Glasgow, n.d.). These two constructs (self-efficacy and barriers) together encompass the meaning of perceived behavioral control (Montano & Kasprzyk, 2002; Schwarzer & Luszczynska, n.d.) and they were specifically measured for the purpose of this research.

These specific constructs were selected (attitudes, norms, self-efficacy, barriers) as the researcher built upon previous research conducted (Basen-Enquist, Masse, Coyle, Parcel, Banspach & Nodora, 1999) to develop the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS). This specificity led to the use of a modified version of the TPB (Figure 1.2). The SRBBS scales were used to evaluate the effectiveness of a school-based program for the prevention of HIV, STDs and pregnancy in high school students (9th to 12th grade). Because the SRBBS scales were normed on adolescents, there was no information on the validity or reliability of the scales in other age groups. Findings in the literature on HIV/STD prevention in adolescents confirm the importance of attitudes,

norms, self-efficacy and barriers to condom use as important to condom use behavior change. Basen-Engquist, et al. (1999) identified previous research to support the use of these constructs by citing studies that found relationships between self-efficacy and an HIV risk, self-efficacy and condom use, attitudes about condoms and condom use, and social norms and condom use. This will be discussed in further detail in Chapter 2:

Review of the Literature.

Figure 1.2 Study Theoretical Framework



1.2 Purpose of the Study and Research Questions

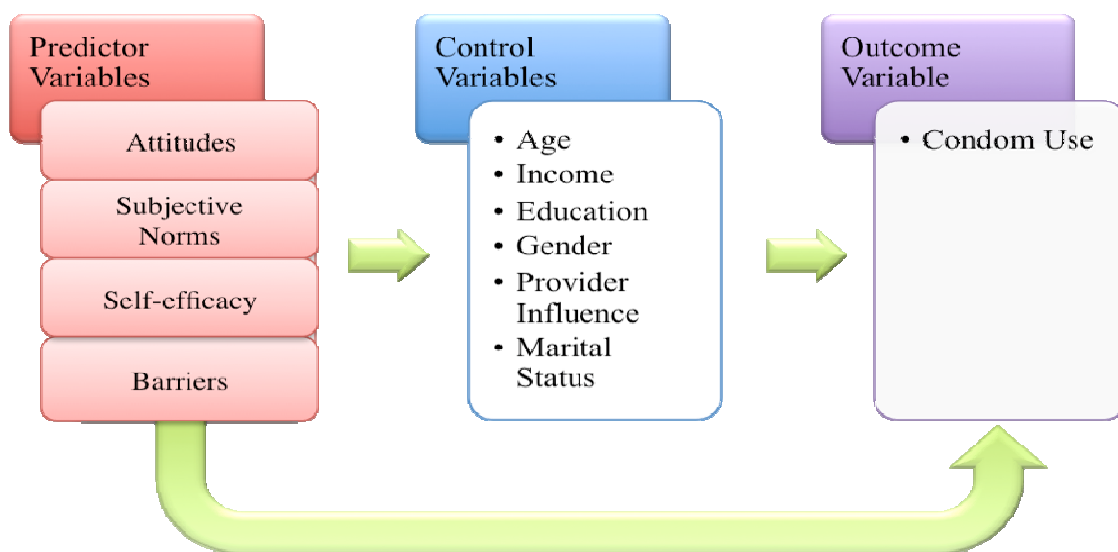
1.2.1 Study Purpose

The purpose of this mixed methods exploratory study was to examine condom use and sexual intercourse perceptions among African American men and women 50 to 65 years of age who reside in the Washington DC metropolitan area. Specifically, this study sought to examine the influence of attitudes, subjective norms, self-efficacy and barriers on condom use behavior (Figure 1.3).

1.2.2 Research Questions

1. Do attitudes, subjective norms, self-efficacy or barriers best predict condom use in African Americans 50 to 65 years of age?
2. Does age, education level, gender, income, marital status, or provider influence affect condom use?

Figure 1.3 Predictors of Condom Use in Older African Americans



1.2.3 Significance of the Study

According to a hearing held before the U.S. Senate Special Committee on Aging – HIV Over Fifty: Exploring the New Threat (2005) – by 2015 the majority of people with HIV/AIDS in the United States will be over 50 years of age. While this group of HIV positive individuals consists of both longtime survivors and those newly diagnosed and newly infected, approximately 16% of new cases of HIV/AIDS will continue to be diagnosed per year in older adults (CDC, 2009b). According to the AIDS Community Research Initiative of America (ACRIA) report (2010), research on Older Adults with HIV, there is a strong need to address the medical and psychological issues facing older adults with HIV, including age-related morbidities, poor service delivery, and stigma and discrimination associated with both ageism and HIV. The ARICA report recommended an increase in federal funding for HIV and aging. In addition the report suggested the need for primary care providers, AIDS agencies and aging organizations to provide HIV prevention education, risk behavior screening and HIV testing for older adults.

Ramos, Howard, & Atkinson (2009) conducted focus groups with 20 African American women to examine condom use among older African Americans. They found that some women did not automatically view condoms as an option because condoms were not something they commonly used (if at all) when they were younger. Furthermore, many believed that men their age were even less likely to be willing to use condoms because they were taught the same thing when they were younger (condoms were to prevent pregnancy); if there was no risk for pregnancy why should they be used? The majority of women believed that although condom use was important, most women their age would either use a condom in the beginning of the relationship and then stop or

would never use one at all. Lindau and colleagues (2006), in their study with women 55 and older ($N = 55$), found that 21% did not feel using a condom was necessary if they could no longer get pregnant. Because of the rising rates of HIV/AIDS among older adults and the lack of attention to and information tailored for this population, this exploratory research begins to fill this gap.

Chapter 2: Literature Review

Due to the increase in HIV/AIDS rates among older adults, research in this area is needed. Topics reviewed in this chapter include HIV in older adults; sexual activity and condom use in older adults; the theoretical framework used in this exploratory study; and a description of the survey instrument used. However, few studies have been conducted with older adults and HIV prevention. Many national studies on sexual behavior have either not included older adults or used a nonrepresentative sample size of older adults (Lindau et al., 2007; Schick et al., 2010). Furthermore, few national probability studies that examined sexuality in older adults included a focus on sexual risk behaviors and condom use (Lindau et al., 2007; Schick et al., 2010). Finally, because most HIV prevention studies with African American males focused on homosexual men, information on heterosexual men is extremely limited.

2.1 HIV in Older Adults

As the baby boomer generation approaches retirement, the population of older adults continues to increase. HIV/AIDS has begun to emerge as a substantial health threat for older Americans. At the beginning of the HIV epidemic, older adults accounted for a small percentage (10-11%) of all AIDS cases in the U.S. (Stall & Cantina, 1994). However after a 13.8% increase of HIV incidence since 1993, adults 50 and older have begun to be recognized as one of the fastest growing populations affected by HIV/AIDS (Moore & Amburgey, 2000). Between 1996 and 2000, the number of persons 50 years and older diagnosed with AIDS was nearly the same as those who were diagnosed in their twenties (CDC, 2001). By the end of 2001, the number of AIDS cases reported

among older adults had reached 90,000 (CDC, 2002). And in 2008, an estimated 16 percent of all new HIV diagnoses occurred in people ages 50 and older in the 37 states with confidential name-based reporting (CDC, 2010a).

While older adults have their own unique health problems (i.e. Alzheimer's disease, osteoporosis, adult-onset diabetes, prostate cancer, menopause, hypertension, etc.), HIV/AIDS is often not associated with or discussed within this cohort; consequently prevention, counseling, testing, and education efforts frequently do not target older adults. Moreover, because most medical providers do not specialize in both HIV and gerontology, HIV/AIDS symptoms such as fatigue, weight loss, night sweats, and diminished appetite, which can all be part of the aging process are often attributed to aging rather than HIV/AIDS resulting in misdiagnoses (Lieberman, 2000).

Although the number of cases among older adults has increased, very few HIV-related social support services have been focused on the needs of this group. This may be due in part to older adults not being viewed as having an active sex life or being presumed to be in monogamous, heterosexual relationships. In reality, many older adults are not only sexually active but also engage in risky sexual behavior including lack of condom use, and alcohol and injectable drug use which can lead to poor judgment in sexual decision making (Lieberman, 2000).

According to AIDS InfoNet (2011), older adults are becoming infected with HIV for many reasons, including:

- 1) older adults who are newly single due to divorce or widowhood may not be aware of the risks associated with HIV transmission;
- 2) very few HIV prevention efforts target older adults;

- 3) older adults may believe that HIV only affects younger people;
- 4) older adults are not typically trained in safer sexual activities;
- 5) illicit drug and alcohol use accounts for more than 16% of infections in people over age 50;
- 6) unprotected sexual activity, heterosexual or homosexual sex;
- 7) the use of Viagra and other sexual enhancement drugs has led to increased rates of sexual activity and STDs among older adults;
- 8) physicians may misdiagnose HIV infection in older adults as normal signs of aging; and
- 9) health care providers may not test older adults for HIV (AIDS InfoNet, 2011).

Providers may not offer to test older adults due to the lower HIV prevalence versus the benefits relative to costs of screening. Older adults have a higher chance of dying from other causes, making the benefits of testing potentially shorter term (Sanders et al., 2005)

Paniagua & O'Boyle (2008) conducted a study involving a comprehensive assessment of risks for HIV infection among middle-aged and older persons (N = 42; ages 51-85). In their assessment, the following cognitive and behavioral domains were surveyed: factual knowledge about HIV transmission; attitudes toward HIV/AIDS; perceived susceptibility and self- efficacy in the context of HIV infection; intention to engage in risk-reduction sexual behaviors; communication problems between partners and between parents and their adult children; perception of internal versus external control; perception of peer norms; prior information regarding how HIV is transmitted and how it could be prevented; prior HIV testing or intention to be screened for HIV; and unprotected sexual intercourse. Study results found that women were less knowledgeable

about how HIV/AIDS is transmitted than men. Regarding self-efficacy, 87% of participants believed they had the skills to prevent HIV infections. Consequently, this high perception of self-efficacy resulted in a low percentage (37%) of people who believed they were susceptible to HIV infection. Study participants reported a higher level of communication skills around HIV related issues with their partner/spouse than with their adult children.

Regarding the intention to change their behavior, 40% of the Paniagua & O'Boyle (2008) sample strongly agreed with the intention to use condoms during their next sexual encounter, for future occasions or after drinking, as well as to insist that partners use condoms, and to discuss HIV and AIDS issues with sexual partners. When considering the perceptions of their peers, 78% of participants felt "neutral" about the statement "My friends talk about safer sex much more than they actually practice it." When examining locus of control to prevent HIV infection, 50% of participants strongly agreed they could control whether they contract AIDS, 57% strongly agreed they could take the right steps to avoid the virus and 57% strongly agreed their own behavior determines whether they will get the virus.

When examining risk factors, participants reported very high levels of unprotected anal (100%, N = 42) or oral sex (88.1%, n = 37) with only 28.6% (n = 12) having been tested for HIV. Furthermore, over the past six months participants reported they had not received information about the transmission (59.5%) or prevention (61.9%) of HIV infection from any source. Paniagua & O'Boyle (2008) recommended using a comprehensive approach to address various cognitive and behavioral risks for HIV infection in the population because this is a group that has been traditionally ignored in

the HIV/AIDS literature. This comprehensive approach should include: providing factual information and clarifying misconceptions regarding HIV contraction and transmission; and understanding the individual's perception of control factors, perceived peer norms, intention to change their behaviors and level of communication about HIV infection.

In the United States, the rates of HIV/AIDS among older adults are 12 times higher for African-Americans and 5 times higher for Hispanics compared with whites. While the CDC does not provide specific data by age and risk category for older adults at the national level, there is more specific data available by region (Gay Men's Health Crisis, [GMHC], 2010). In 2005, people over 40 made up 70% of all the HIV positive people in New York City (Ernst, et al., 2008). In 1999, the highest number of HIV/AIDS cases in older adults were in the Southern region of the United States, with the top three cities being Ft. Lauderdale, FL, Miami, FL, and Columbia, SC, with South Carolina reporting the nation's sixth highest AIDS rates (CDC, 2001 & 2008c). African American women aged 50 and older are disproportionately affected by the HIV/AIDS epidemic. Despite African Americans making up 11% of all older women in the United States, in 2001 they accounted for more than 50% of AIDS cases among older women and more than 65% of HIV cases among older women (Schick et al., 2010). The rate of new HIV infections for African American men is six times higher than that of white men, nearly three times that of Hispanic/Latino men, and more than twice that of African American women (CDC, 2010b).

2.2 Sexual Activity and Condom Use in Older Adults

Many older adults are less likely to use condoms because they do not consider themselves to be at risk for transmitting or contracting HIV or STDs and/or they were not

taught that condom use should be part of their sex lives (Boskey, 2011). Schick and colleagues (2010) conducted a study with a sub-sample ($n = 1,974$) of nationally representative adults 50 and older (median age = 60) regarding their sexual behaviors, condom use, sexual pleasure and sexual experience. The sub-sample was part of the National Survey of Sexual Health and Behaviors (NSSHB) conducted in early 2009. Most of the men (63.5%) and nearly half of the women (46.6%) reported being sexually active over the past year. Of those reporting penile-vaginal intercourse within the past year ($n = 980$), the majority of men and women reported having penile-vaginal intercourse a few times a month or more (66.7% and 67.7% respectively) Schick et al., 2010).

Also in the Schick et al. (2010) research, condom use among participants who engaged in penile-vaginal intercourse in the past year was examined using a subset of the study participants who met at least one of the following criteria: reported more than one sexual partner in the past year; defined their relationship status as single; reported sexual activity with someone other than their main partner; or reported they have been in their current relationship for less than one year (men, $n = 122$, women, $n = 81$). Among this group only 20% of men and 24% of women reported using a condom during their last sexual encounter. Condom use in this subset also varied based on partner type (i.e. relationship partner, casual/dating partner, friend, new acquaintance or transactional-sex for pay) with the highest percentage of men (66.7%) reporting condom use with a transactional partner and the highest percentage of women (44.4%) reporting condom use with a friend. Despite these higher levels of sexual activity and lower levels of condom use, the majority of study participants reported they had not been tested for an STI within

the past year (64.4% of men and 68.9% of women). Lastly, it is important to note that 17% of the men in the study reported using an erectile medication during their last sexual encounter. Schick et al. (2010) recommended that sexual health professionals should pay attention to the sexual health needs of older adults, including STI testing and education, condom education and taking a complete health history of patients' sexual experiences.

In a study examining the correlates and predictors of condom use and HIV testing in older women (n = 1,280, ages 50 to 64), almost half the women (n = 623, 46.8%) reported being in heterosexual relationships and 73% of these women reported having vaginal sex in the past six months (Sormanti & Shibusawa, 2007). Of the sexually active women, only 12% reported using condoms and 45% reported being tested for HIV. This study demonstrates that older adults are sexually active and have at least one risk behavior for HIV transmission (i.e. the majority do not use condoms). Lindau et al. (2006) examined the effects of race and marriage on the sexual attitudes, behavior, and patient-physician communication about sexuality and HIV/AIDS among older women (N = 55; ages = 58-93). Of the women participating in the study, 27% (n = 15) had a sexual encounter in the past month and 38% (n = 21) had at least one sexual partner in the past year. Of the women reporting sexual activity in the previous 10 years, 28% had used condoms during their last sexual encounter. Of the women with a current sexual partner, (n = 20) 21% agreed that condom use is not necessary "if you can no longer get pregnant."

In an effort to identify theoretical factors associated with the occurrence of HIV risk behaviors (e.g. more than one sex partner in the past 5 years; sex partner having sex with other women; sex partner having sex with men; exchanging sex for an item of value;

and sex with someone HIV-positive), Winningham et al. (2004) conducted a cross sectional survey with 181 older African American women (ages = 50 to 81) in rural South Carolina. They found that condom use self-efficacy was significantly higher among women who reported lower sexual risk behaviors compared to women who reported higher risk behaviors (mean = 18.9 F 4.16 vs. mean = 17.0 F 4.88; $t = 2.21$, $p < 0.05$). Lower risk women were more likely to report greater comfort in communicating about sex with their partners, while women at higher risk reported having more friends or peers who discussed HIV-related risk behavior. Women with lower education levels, less condom use self-efficacy, greater numbers of peers discussing condom use and the need to protect themselves, as well as less comfort communicating about sex with their sexual partners, were significantly more likely to report sexual behaviors that put them at risk for HIV infection. While having a greater number of peers discussing HIV-related risk behaviors may lead to a reduced number of sexual risk behaviors, the Winningham et al. (2004) suggest that the women may not have had the skills necessary to decrease their risk behaviors (i.e. leaving high risk relationships, condom use negotiation skills). As a result, prevention efforts with older women should incorporate condom negotiation skills, which may lead to increased condom use self-efficacy and comfort communicating about sex. Those developing prevention programs should also consider the influence of peers on behaviors (Winningham et al., 2004).

With sexual contact being reported as the most frequent HIV transmission route of HIV among older adults (Chiao, Ries, & Sande, 1999; Williams & Donnelly, 2002), and heterosexual men serving as the primary sexual partners to heterosexual women, it is important to understand the HIV prevention needs of heterosexual men. African

American men who have sex with women (MSW) have been under-researched in the social science HIV/AIDS literature. Heterosexual African American men's primary HIV risk behaviors (i.e. injection drug use and unprotected sex) also serve as the leading HIV transmission routes for African American women. When considering the rates of HIV in African American women and their social and historical connection to African American men, this lack of research is concerning (Bowleg, 2004). There is an obvious need to understand the perceptions of heterosexual men regarding HIV risks and transmission, nevertheless the body of knowledge within this subpopulation is small (Exner, 1999; Noar, 2002).

In order to better understand the needs of African American heterosexual men regarding HIV and condom use, Bowleg (2004) conducted a mixed methods study with 13 men (24 to 50 years old) who were in heterosexual relationships. Most of the men ($n = 11$) reported being in relationships where they were equally or more committed than their partners. Nine men reported being in a monogamous relationship, while the other four reported having sex partners outside of their primary relationship. Study participants varied in their concern about contracting HIV from their partners with six men having no concern at all, one man being a little concerned, two men feeling neutral and four men feeling extremely concerned. Eight of the men reported not wanting to use condoms, three were undecided, and two wanted to use condoms. Four of the men reported that the decision to use condoms was mutual with their partner. Very few men reported consistent condom use in the past month: always ($n = 2$), sometimes ($n = 4$), and never ($n = 7$). As this was one of very few studies conducted with African American heterosexual men, Bowleg suggested a need for further research to better understand the views of African

American men regarding their sexual relationships, HIV and condom use.

2.3 Theoretical Framework

2.3.1 The Theory of Planned Behavior (TPB)

The theoretical framework for this research study consisted of the use of three constructs, attitudes, norms and perceived behavioral control from the Theory of Planned Behavior (TPB). TPB is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). An additional construct, perceived behavioral control, was added to the TRA because while actual behavioral control (e.g. resources, opportunities) is important, the perception of control was thought to have a greater impact on intentions and actions. Perceived behavioral control is an individual's perception of ease or difficulty in performing a behavior. It is very similar to self-efficacy. The other two determinants of behavioral intention included in the TPB are 1) attitude toward the behavior and the extent to which an individual has positive or negative thoughts regarding the behavior; and 2) subjective norms or the amount of social pressure associated with performing the behavior. The TPB explains behavior by dealing with attitudes (behavioral beliefs and evaluation of behavioral outcomes), subjective norms (normative beliefs and motivation to comply) and perceived behavioral control (control beliefs and perceived power), which combined or separately determine intentions and action.

- Attitudes: Attitudes develop from beliefs people hold about an object. Beliefs are formed by associating the object with specific attributes (i.e. other objects, characteristics, events). Regarding attitudes towards a behavior, each belief links a behavior to an outcome or attribute related to the cost of performing the

behavior. These outcomes or attributes have been evaluated as positive or negative so an individual automatically associates that attitude towards the behavior.

- **Subjective Norms:** Normative beliefs focus on the probability that individuals or groups that are important to the person approve or disapprove of that person performing a certain behavior. The normative belief is multiplied by the individual's motivation to comply with those important to them, which provides a rating of how much the individual cares what those important to them think.
- **Perceived Behavioral Control:** Control beliefs may be based on past experiences with behaviors as well as the presence or absence of resources and opportunities necessary to perform the behavior. However, control can also be influenced by second hand information about the behavior, thereby increasing or decreasing the perceived difficulty of performing the task at hand. The more resources people believe they have and the fewer obstacles they anticipate facing, the greater their perceived behavioral control over the behavior.

The concept of perceived behavioral control (PBC) is not new or original to the TPB. The portion of PBC definition 'perceived difficulty of performing a specific task' is very similar to the construct self-efficacy (Bandura, 1977) which refers to "... people's beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives" (Bandura, 1994, p. 2). "Self-efficacy beliefs are cognitions that determine whether health behavior change will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and failures" (Schwarzer & Luszczynska, n.d., p. 1). Additionally, the portion of PBC definition 'more

resources and fewer obstacles' is very similar to the construct barriers from the Health Belief Model (HBM) (Rosenstock, 1974) defined as "a person's *estimation* of the level of challenge of social, personal, environmental, and economic obstacles to a specified behavior or their desired goal status on that behavior" (Glasglow, n.d. p.1). It is believed that perceived barriers may lead to changes in levels of self-efficacy. Barriers is considered the most significant construct of the HBM in determining behavior change (Janz & Becker, 1984). Because self-efficacy and barriers together incorporate the meaning of perceived behavioral control (Montano & Kasprzyk, 2002; Schwarzer & Luszczynska, n.d.), they were specifically measured in this research study.

2.3.2 Sexual Risk Behavior Beliefs and Self Efficacy Scales (SRBBS)

In order to better understand the perceptions of sexual intercourse and condom use in older African Americans, the researcher examined four constructs (attitudes, norms, self-efficacy, barriers) in building upon previous research conducted with an adolescent population by Basen-Engquist, et al. (1999) in their development of the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS). The SRBBS scales were originally part of a larger questionnaire used to evaluate the effectiveness of a school-based program that sought to prevent HIV, STDs and pregnancy in high school students (9th to 12th grade). The scales were developed in four stages: 1) psychosocial constructs relevant to HIV, STD and pregnancy risk behavior were identified; 2) items based on the theory of reasoned action, the social cognitive theory and the health belief model were generated; 3) the draft instrument was pretested using focus groups (6) with high school students; and 4) the instrument was revised and tested again using additional focus groups (N = 5). Basen-Engquist et al. (1999) included 30 items in the original

questionnaire and after a factor analysis was conducted the final scales consist of 22 items with a 3- or 4-point Likert response format. Three of the scales addressed intercourse involvement and five scales addressed condom use (Table 2.1).

Statistical analyses indicated sound reliability and construct validity for attitudes, norms, self-efficacy and barriers associated with sexual activity and condom use. A strength of the Basen-Engquist, et al. (1999) research was the large and diverse sample (N = 6213) comprised of five ethnic groups: African-American (16%), Hispanic (28%), Asian (18%), Native American (6%) and White (32%). The instrument was normed using a sample of high school students and also used in a population of university students aged 16 to 26 (Farmer & Meston, 2006); hence there was no evidence that the questionnaire was valid for middle age or older groups. The SRBBS scales are potentially useful for evaluating psychosocial changes in HIV, STD and pregnancy prevention program participants and may also be appropriate for evaluating theory-based programs that teach skills on how to avoid unprotected sex. Additionally, the scales could be used to assess programs that attempt to change norms regarding risk-taking behavior.

Table 2.1 Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS)

	Cronbach's α	Items per Scale
Intercourse Involvement Scales		
Attitudes about sexual intercourse	.78	2
Norms about sexual intercourse	.78	2
Self-efficacy in refusing sex	.70	3
Condom Use Scales		
Attitudes about condom use	.87	3
Norms about condom use	.84	3
Self-efficacy in communication about condoms	.66	3
Self-efficacy in using and buying condoms	.61	3
Barriers to condom use	.73	3

2.3.3 Theoretical Constructs, Condom Use and HIV Prevention

Ajzen and Fishbein's TPB has been used to research condom use and findings in the literature on HIV/STD prevention to confirm the importance of attitudes, norms, self-efficacy and barriers when attempting to explain condom use behavior. A meta-analysis of 96 articles by Albarracin and colleagues (2001) demonstrated that the theories of reasoned action and planned behavior successfully predicted condom use. In 2004, Albarracin and colleagues conducted a subsequent meta-analysis of 58 studies to examine the influence of norms, control beliefs, attitudes, and intentions regarding condom use behavior. Perceived behavioral control and norms have a greater influence on condom use when an individual's power and normative support were limited. Their research has two main implications for prevention efforts. First, intervention messages should target the factor(s) that are most influential in a given population (e.g. attitudes, norms or perceived behavioral control); and second, interventions can attempt to influence the impact of attitudes, norms or perceived behavioral control, or attempt to make structural changes to increase social resources or strengthen informational support for a given group. Additionally, their meta-analysis suggested that prevention programs should be tailored based on the target population's age, gender, race/ethnicity and education level. Their research found that participants, who were younger, less educated and minorities, had stronger associations between perceived behavioral control and condom use. The relationship between perceived behavioral control and condom use intentions was higher among those participants who were younger, female and minority. Their meta-analysis also found that samples, which placed greater importance on social norms relied more on their social networks for condom use decisions (Albarracin et al., 2004).

Several studies have used the TPB to predict and explain condom use in young adults and adolescents. Giles, Liddell, and Bydawell (2005) studied self-efficacy in the context of the TPB to predict and explain condom use among 152 African young adults. Condom use self-efficacy was designed to measure the extent to which an individual believes he/she has the confidence/ability to use a condom, such as “I believe I have the ability to use a condom the next time I have sex.” Results provided support for using the TPB as subjective norms and self- efficacy and both were found to be substantial predictors of condom use. Zissimopoulos (2005) assessed condom use intentions of 128 college students using the TPB. The study found that norms and perceived control significantly explained ($p < .05$) intentions to use condoms while attitudes did not. When examining each construct more closely norms, specifically the belief that condom use was important to their occasional partner or doctor, were highly significant in predicting condom use intentions. Two beliefs, “using condoms would reduce sexual pleasure” and “using condoms was the responsible thing,” predicted condom use intentions in this sample when respondents agreed with these beliefs. Several control perceptions were found to be significantly related to condom use intentions: 1) the likelihood that one would use a condom when the partner refused; 2) the likelihood of using condoms when one is very excited; 3) the likelihood of using condoms when one’s partner is very excited; and 4) the likelihood of using condoms when condoms were not readily available. Zissimopoulos (2005) concluded that under these four circumstances, the more likely a person is to delay having sex, the stronger his/her intentions will be to use condoms. The researcher recommended using the TPB to promote messages to change people’s beliefs about condom use. College students may be more likely to develop

favorable intentions to use condoms if they believe others around them want them to use condoms and can view condom use in a positive light.

Basen-Engquist et al. (1999) cited several studies that supported the use of attitudes, norms, self-efficacy and barriers as predictors of condom use among adolescent populations. Basen-Engquist & Parcel (1992) conducted a statewide survey with 1,720 ninth graders in Texas to examine how psychosocial predictors (attitudes, norms, self-efficacy, and behavioral intentions) related to HIV sexual risk behaviors. The researchers found that attitudes, norms, and self-efficacy predicted 36.4% of the variance in the intention to limit the number of sexual partners and the same variables plus intention predicted 24.6% of the variance in number of sexual partners in the past year. Attitudes, norms, and self-efficacy regarding condom use predicted 17.0% of the variance in condom use intentions; these variables plus intentions predicted 19.0% of the variance in condom use frequency. A study conducted by Kasen, Vaughn & Walter (1992) with 181 10th-grade students in New York on their beliefs about self-efficacy for AIDS prevention behaviors found that many students had low self-efficacy for refusing sex under social pressures (sex with a desirable partner, sex after using alcohol or drugs). They also found an increased likelihood of risk-taking behavior in the presence of decreased self-efficacy, even after controlling for knowledge and attitudes toward AIDS. Research conducted by Romer et al. (1994) with 300 youth 9 and 15 years of age examining social norms and condom use found that peer perceptions were more strongly related to sexual behavior than parental monitoring. They also found that condom use declined with age except amongst those who perceived that most of their friends also used condoms. Schaalma, Kok & Peters (1993) conducted a study with 1018 Dutch youth 12 to 19 years of age to

examine attitudes, norms and self-efficacy on condom use for HIV prevention. The study found that youth who had a positive attitude, who perceived positive social norms and who had positive self-efficacy expectations were more likely to use condoms consistently.

In summary, HIV/AIDS rates among older adults, specifically African Americans, have continued to increase; however there has not been an increase in research studies or prevention efforts to counteract this growth. Older adults are sexually active and engage in risky sexual behaviors such as unprotected sex and sex with multiple partners. A focus is also needed on the HIV prevention needs of heterosexual men, as they are often the partners of heterosexual women, a group experiencing a disproportionate number of HIV infections. The examination of attitudes, norms, self-efficacy and barriers has been found to successfully predict and understand sexual activity and condom use in various teenage and young adult populations. Therefore, the need exists to examine what factors best predict condom use in older African Americans.

Chapter 3: Methodology

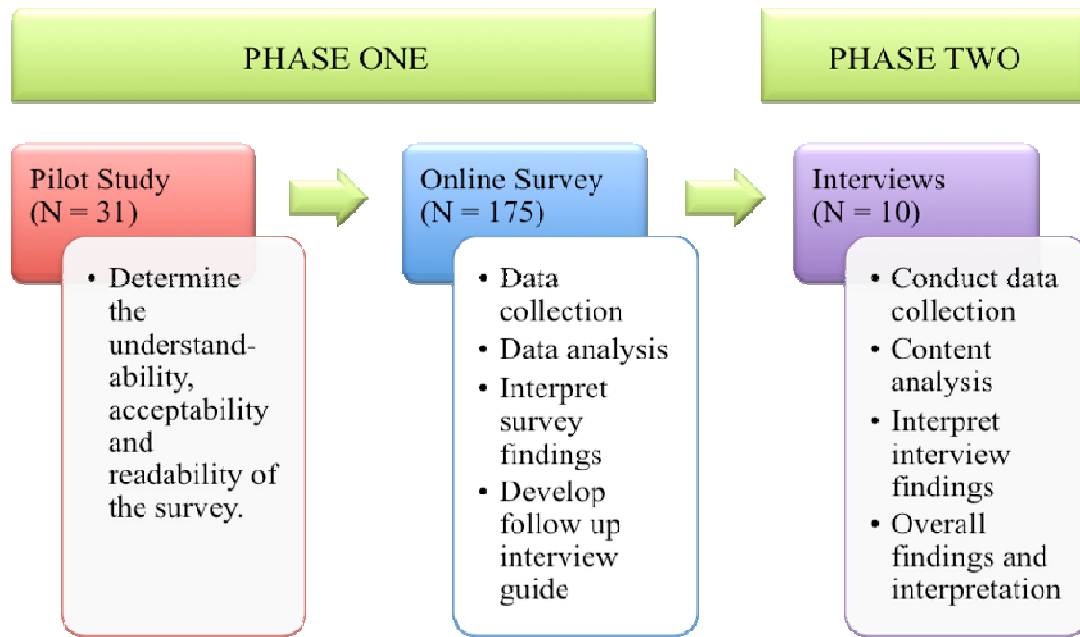
This chapter presents the research methods that were used to examine which construct(s) (attitudes, norms, self-efficacy or barriers) best predict condom use in African Americans 50 to 65 years of age. Information regarding the study design, sample, measurement tools, data collection and statistical analyses are provided.

3.1 Study Design

This study utilized a mixed methods approach. Mixed methods research involves collecting and analyzing both quantitative and qualitative data in a single study to better understand the research questions than either approach alone allows (Creswell, & Plano Clark, 2007). The mixed methods research this study used, explanatory sequential design, was a two-phase mixed methods design where qualitative data helps to explain or build upon quantitative findings (Figure 3.1) (Creswell, & Plano Clark, 2007). During the first phase the researcher collects and analyzes quantitative data and statistically different, anomalous, and/or unexpected findings are identified. During the second phase, qualitative follow-up interviews are conducted with a subsample of individuals who completed the online survey; their responses are analyzed to help explain why the quantitative results occurred. The rationale for this study design is that the quantitative data analyses provide a general understanding of the research problem while the qualitative data help to refine and explain statistical findings by more closely examining participants' views (Creswell & Plano Clark, 2007). The researcher felt this study design would be most effective because first it identified quantitatively which constructs (attitudes, norms, self-efficacy, barriers) best predicted condom use and then

it qualitatively identified why or how the specific constructs did or did not impact condom use (i.e. diminished pleasure was found to be a barrier to condom use).

Figure 3.1 Explanatory Sequential Design



During phase one of this research study, 31 individuals participated in a pilot test of the survey instrument to determine the appropriateness, understandability, and length of time it takes to respond to the survey. Additionally, validity and reliability of the scales was established. Participants (N = 175) then completed a web-based survey, the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS), developed by Basen-Enquist, et al. (1999), to examine their attitudes, norms, self-efficacy beliefs and barriers regarding sexual activity and condom use. During the second phase of the study, qualitative semi-structured interviews were conducted with 10 participants to further explain and enrich the quantitative findings.

3.2 Population and Sample Selection Process

The target population for this study was African American men and women 50 to 65 years of age who live in the Washington DC metropolitan area who were sexually active within the past year. Study participants were self-identified based on the above criteria. Because of the specific population group of interest, nonprobability convenience purposive sampling (Whyte, 2005; Whyte, Whyte & Cromier, 2008) was used. The quantitative data were collected via an on-line survey; potential participants were invited to go to the survey link (<http://tinyurl.com/iar-diss-survey>) to complete the questionnaire.

To achieve the desired sample size ($N = 175$) a total of 240 participants were recruited to participate in the study. A final sample size of 160 older adults (80 women and 80 men) was needed to support the planned analyses. With Type I error α set at .05 and a power of .80, a moderate effect size of .45 was sufficient to detect differences in condom use between the males and females and married and non-married respondents. To account for attrition, 120 individuals were recruited per gender. Calculations for sample size and power were done using the Lipsey power chart (1990).

Participants were recruited through various venues: 1) African American churches ($N = 4$); 2) African American sororities and fraternities ($N = 6$); and 3) senior centers ($N = 12$) in the Washington DC metropolitan area (Appendix A). The identified venues were selected because the researcher had established contacts within the various locations. Recruitment flyers (Appendix B) were placed at each venue for posting or distribution through email blasts (Appendix C) to existing listservs. The flyers contain a description of the study, a link to the survey and contact information for interested individuals. The email contained a brief explanation of the study, a link to the survey and the flyer.

Participants were also recruited by word of mouth (Winningham et al., 2004) using snowball sampling, as interested persons were encouraged to invite a friend to participate in the research study (Cornelius et al., 2008).

3.3 Instrumentation

3.3.1 Quantitative Tools

Pilot Study

Pilot study participants completed the online survey (Appendix D), and the pilot feedback form (See Table 3.1), to assess the understandability, acceptability and readability of the survey instrument.

Table 3.1 Pilot Study Feedback Questions

- | |
|--|
| <ol style="list-style-type: none">1. Were there any survey items/questions you had difficulty understanding?2. Were there any words that you did not know the meaning of or did not understand?3. Were you uncomfortable with any language used in the survey items/questions?4. Were you uncomfortable with any of the survey items/questions?5. Were there any survey items/questions that made you feel embarrassed?6. Were there any survey items/questions we should not have asked?7. Were there any survey items/questions you feel we should have asked?8. Are there any additional comments you would like to add? |
|--|

Online Survey

Participants completed the online survey (Appendix F). The 42-item survey contained the original 30 items tested in the validation of the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS) (Basen-Engquist, et al., 1999), three questions about sexual activity, one question about communication with health care providers and eight demographic and background questions. The SRBBS consists of eight scales measuring attitudes, norms, self-efficacy and barriers to sexual activity and condom use that may affect sexual risk taking and protective behavior. A three or four item Likert

scale response format was used for each item (i.e. definitely yes, probably yes, probably no, definitely no; totally sure, kind of sure, not sure at all; and strongly agree; kind of agree, kind of disagree, strongly disagree). Items in three scales assessed sexual risk taking behavior and items in five scales assessed protective behavior (See Table 3.2). The SRBBS was selected because it included constructs of interest to the researcher (attitudes, norms, self-efficacy and barriers associated with sexual activity and condom use) and statistical analyses indicated sound reliability and construct validity.

Table 3.2 Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS)

	Cronbach's α	Items per Scale
Intercourse Involvement Scales		
Attitudes about sexual intercourse	.78	2
Norms about sexual intercourse	.78	2
Self-efficacy in refusing sex	.70	3
Condom Use Scales		
Attitudes about condom use	.87	3
Norms about condom use	.84	3
Self-efficacy in communication about condoms	.66	3
Self-efficacy in using and buying condoms	.61	3
Barriers to condom use	.73	3

Sexual Activity was measured using three items from the National Survey on Sexual Health and Behaviors (NSSHB). The items measure respondents' level of sexual activity and condom use (Schick et al., 2010), specifically:

1. within the past year, has the individual engaged in sexual behaviors (i.e. giving or receiving oral sex, vaginal intercourse and insertive/receptive anal intercourse;
2. if the individual has engaged in penile-vaginal intercourse within the year, what was the frequency number of sexual encounters over the past year; and
3. the number of times condoms were used during sexual activities over the past year.

Additional survey items measured whether providers discussed safer sex with their patients (e.g. how to using condoms, dental dams, or providing STD/HIV education); demographic and background information (age, gender, race, ethnicity, education, income, sexual orientation, marital status, relationship status) and whether they were willing to participate in a follow-up interview: Each person was asked to include an email address where they could be contacted if they were interested in participating in the qualitative interview.

3.3.2 Qualitative Tools

Participants who agreed to participate in the follow-up interview (Appendix G) completed a consent form (Appendix H) and a brief demographic sheet (Appendix I). The follow-up interview consisted of six items from the SRBBS that had been identified as statistically different, anomalous, and/or unexpected and were rewritten using an open-ended format to help interpret the quantitative findings.

3.4 Data Collection Procedures

3.4.1 Phase I – Quantitative Procedures

Step 1: Pilot Test Survey

Because the SRBBS was normed with an adolescent population and participants in this study were older adults, the survey was pilot tested with a sample of African Americans 50-65 years of age ($N = 31$) to estimate how long it would take to complete the survey and to determine the understandability, acceptability and readability of the survey instrument (Appendix D) prior to administration with the entire sample. A convenience sample of participants were recruited word of mouth (Appendix J) to

participate in a pilot test of the online survey and were asked to time themselves completing the survey on their own without interruption. Interested participants accessed the online survey at <http://tinyurl.com/IAR-pilot-study>. Individuals who completed the pilot survey then contacted the researcher to participate in a telephone interview to complete the pilot feedback form (Appendix E), rating the understandability, acceptability and readability of the survey instrument. The pilot study data collection took eight weeks to complete. The researcher felt the questions in the pilot study elicited information that adequately measured the construct variables from the adapted theoretical framework. Therefore, it was not necessary to revise to the survey questions/items.

Step 2: Survey

A convenience sample of participants were recruited through twelve listservs and six senior centers in the Washington DC metropolitan area to participate in the online survey (Appendix F). Interested participants accessed the online survey at <http://tinyurl.com/iar-diss-survey>. The average length of time to complete the survey was 15 minutes. The survey link remained open and active until a minimum of 160 complete participant surveys were collected. The online survey data collection took five weeks to complete. After data collection was complete, the data were analyzed to identify specific questions where follow-up was needed. These identified items were then used during the post survey interviews with a subsample of the population ($N = 10$). Six questions that had high/low response rates or differences between groups were selected for inclusion in the interviews.

3.4.2 Phase II – Qualitative Procedures

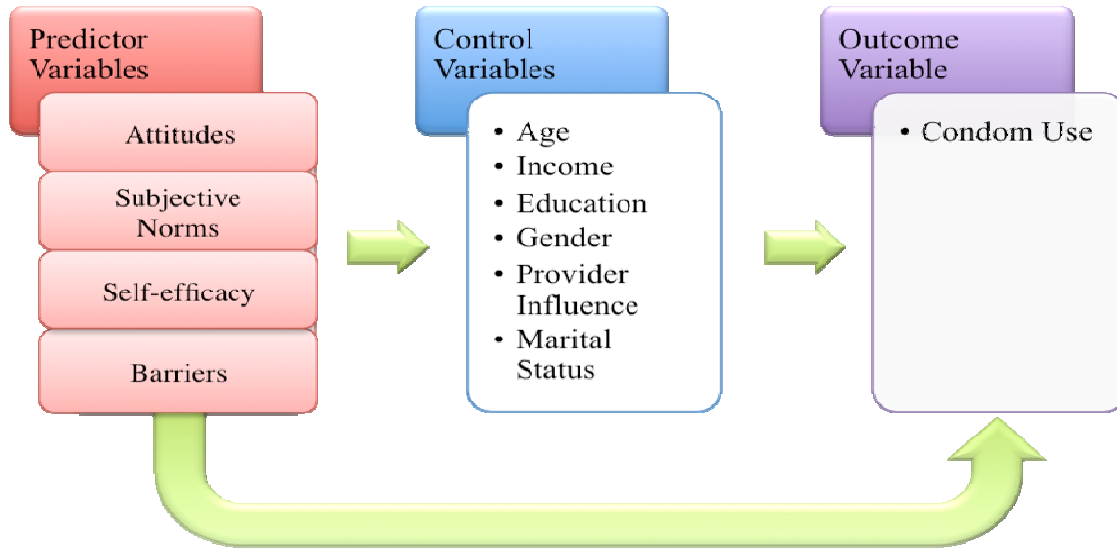
Step 3: Interviews

Seventy-five (75) participants who provided their email address for a follow-up interview were placed into a database. The computer was programmed to randomly generate 30 numbers. The email addresses corresponding with the numbers were sent an email inviting them to participate in a follow-up interview (Appendix K). A total of 14 people responded to the email and the first 10 participants who agreed to participate in the interview were scheduled for an in-person interview. The follow-up explanatory interviews were conducted at a mutually agreed upon location and took an average of 40 minutes. At the start of the interview, the purpose of the interview and a description of its voluntary and confidential nature were explained. Once any questions had been answered, participants completed the interview consent form (Appendix H). The interviews were audio taped; only first names or pseudonyms were used. At the conclusion of the interview, participants were asked to complete a brief demographic sheet. The interview data collection took one week to complete.

3.5 Conceptual Model

To better understand condom use among older African American men and women, the conceptual model for this research study examined four independent predictor variables, six possible control variables, and one outcome variable (Figure 3.2). The predictor variables (attitudes, norms, self-efficacy, barriers) were adapted from the Theory of Planned Behavior as the researcher built upon previous research conducted by Basen-Enquist, et al. (1999) in the development of the SRBBS scales.

Figure 3.2 Conceptual Model



Each of the predictor variables was measured using items from the SRBBS (Table 3.3 and Table 3.4), which consisted of eight scales, three measuring sexual intercourse and five measuring condom use. The control variables were selected as the researcher felt they could potentially impact the prediction of condom use. The control variables were age, gender, education level, income, marital status and health care provider influence. Age and gender were determined using standard responses (e.g. numeric value and male/female). The educational level responses ranged from never attended school or only attended kindergarten to having a graduate or professional degree (JD, PhD, MD, MS, etc.); income categories ranged from less than \$10,000 to \$75,000 or more. The marital status responses were married, widowed, living with partner, divorced, separated, or never married. If the respondent answered widowed, living with partner, divorced, separated or never married, they were then asked if they were currently dating. Responses to this item included “yes”, “no” or “other”. If they responded “yes” they were asked to indicate “how long” and if they responded “other” a blank space was provided to write in.

Health care provider information was determined by asking if safer sex information had been received from medical providers (e.g. using condoms, dental dams, or providing STD/HIV education). The frequency of sexual activity was determined by asking participants if they had been sexually active within the past year. If the response was yes, they were asked to estimate the number of times. Last, the outcome variable *condom use* was assessed by asking respondents to estimate the number of times a condom was used when they were sexually active during the past year.

Table 3.3 Intercourse Involvement Scales Variables

Question	Response Format (score)		Scale Range	
Sexual Risk Taking Behavior Scales * Reverse scoring	Definitely yes (1) Probably yes (2) Probably no (3) Definitely no (4)	Totally sure (1) Kind of sure (2) Not sure at all (3)	3 to 9	3 to 12
<i>Attitudes about sexual intercourse</i> 1. I believe people my age should still be sexually active 2. I believe it's OK for people my age to be sexually active with a steady partner* 3. I believe it's OK for people my age to be sexually active with several different people in the same month	X			X
<i>Norms about sexual intercourse</i> 1. Most of my friends believe people my age should still be sexually active 2. Most of my friends believe it's OK for people my age to be sexually active with a steady partner* 3. Most of my friends believe it's OK for people my age to be sexually active with several different people in the same month	X			X
<i>Self-efficacy in refusing sex</i> 1. Imagine you met someone at a social event. He or she wants to have sex with you. Even though you are very attracted to each other, you're not ready to have sex. How sure are you that you could keep from having sex? 2. Imagine you are in a relationship, but you have not had sex. Your partner really wants to have sex. Still, you don't feel ready. How sure are you that you could keep from having sex until you feel ready? 3. Imagine you and your partner decide to have sex but he or she will not use a condom. You do not want to have sex without a condom. How sure are you that you could keep from having sex, until your partner agrees it is OK to use a condom?		X	X	

Table 3.4 Condom Use Scales Variables

Question	Response Format (score)			Scale Range	
Protective Behaviors Scales	Definitely yes (1) Probably yes (2) Probably no (3) Definitely no (4)	Totally sure (1) Kind of sure (2) Not sure at all (3)	Strongly agree (1) Probably agree (2) Probably disagree (3) Strongly disagree (4)	3 to 9	3 to 12
<i>Attitudes about condom use</i> 1. I believe condoms should be used if a person my age is sexually active 2. I believe condoms should always be used if a person my age has sex, even if pregnancy is not possible 3. I believe condoms should always be used if a person my age has sex, even if the two people know each other very well	X				X
<i>Norms about condom use</i> 1. Most of my friends believe condoms should be used if a person my age is sexually active 2. Most of my friends believe condoms should always be used if a person my age has sex, even if pregnancy is not possible 3. Most of my friends believe condoms should always be used if a person my age has sex, even if the two people know each other very well	X				X
<i>Self-efficacy in communication about condoms</i> 1. Imagine you and your partner have been having sex but have not been using condoms. You really want to start using condoms. How sure are you that you could tell your partner you want to start using condoms? 2. Imagine you are having sex with someone you just met. You feel it is important to use condoms. How sure are you that you could tell that person you want to use condoms? 3. Imagine that pregnancy is no longer possible. You want to use condoms to keep from getting STD or HIV. How sure are you that you could convince your partner that you still need to use condoms?		X		X	
<i>Self-efficacy in using and buying condoms</i> 1. How sure are you that you could use a condom correctly? 2. How sure are you that you could explain to your partner how to use a condom correctly? 3. How sure are you that if you told your partner you wanted to start using condoms, that is what the two of you would do? 4. If you wanted to get a condom, how sure are you that you could go to the store and buy one? 5. If you decided to have sex, how sure are you that you could have a condom with you when you needed it?		X		X	
<i>Barriers to condom use</i> 1. It would be embarrassing to buy condoms in a store. 2. I would feel uncomfortable carrying condoms with me 3. It would be wrong to carry a condom with me because it would mean that I'm planning to have sex. 4. Having to put a condom on before sex would be a hassle 5. Using a condom would be embarrassing 6. Sex wouldn't feel as good if condoms were used.			X		X

3.6 Data Analysis

All quantitative analyses were performed using the IBM SPSS (Statistical Program for the Social Sciences) Statistics 20 Grad Pack. Construct validity of the questionnaire scales was assessed using an exploratory factor analysis. Internal consistency of the scales was assessed using Cronbach's alpha. The qualitative data were analyzed using content analysis (Zhang & Wildemuth, n.d). Qualitative content analysis has been defined as: "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p.1278). Content analysis is an appropriate method for analyzing and describing the data set in rich detail. In this research, directed content analysis was conducted where the initial coding started with relevant research findings, then during analysis the researcher allowed themes to emerge from the data (Hsieh & Shannon, 2005).

Quantitative Analyses

Research Question 1

Do attitudes, norms, self-efficacy or barriers best predict condom use in African Americans 50 to 65 years of age? Descriptive statistics were calculated to describe the sample and scale scores (frequencies, percentages, means, and standard deviations). Logistic regression analyses were used to determine which scales, if any, were associated with condom use.

Research Question 2

Does age, education level, gender, income, marital status, or provider influence or control for condom use? Logistic regression analyses were used to determine which

demographic variables were associated with condom use. Because the dependent variable, condom use, was examined as a binary variable, logistic regression was the statistical method used in this study. Logistic regression is often used when the relationship between the dependent and predictor variables is non-linear and is appropriate for use with a categorical dependent variable and continuous or categorical independent variables (Bewick, Cheek & Ball, 2005).

Qualitative Analyses

Following each interview, the audiotape was transcribed verbatim into written text by one transcriptionist. To ensure accuracy and completeness, the researcher compared the transcription to the original audiotape and corrections were made when necessary. Content analysis began by listing half of the participants ($n = 5$) complete interview responses under the corresponding question. Each response was read multiple times to identify recurring themes (i.e. words, phrases, and sentences) and then placed into categories and coded with a key word determined by the researcher. The same process was used to analyze the remaining half of the participants ($n = 5$) complete interview responses and additional categories and codes were added as necessary. A final list of labeled categories and coded data were prepared and comparisons were made. The last step was to make sense of the identified themes, categories or codes by identifying relationships between them, uncovering patterns, and/or comparing them against the quantitative data results (Zhang & Wildemuth, n.d). This information was used to further inform the quantitative findings.

Chapter 4: Results

The purpose of this study was to examine perceptions regarding condom use and sexual intercourse among African American men and women 50 to 65 years of age who reside in the Washington DC metropolitan area. Specifically, the study sought to examine the influence of attitudes, subjective norms, self-efficacy and barriers on condom use behavior. A mixed method approach was employed in hopes of providing valuable information about condom use and sexual intercourse in older African Americans, a group that has not been frequently studied regarding condom use. This chapter presents key findings from the pilot study (N = 31), the online survey (N = 175) and the follow-up interviews (N = 10).

4.1 Pilot Test

The goal of the pilot study was to assess the understandability, acceptability and readability of the survey instrument. This was necessary given the survey was originally normed on an adolescent population. Pilot study participants were invited to take the survey on-line and then complete a brief feed-back form regarding the survey (Appendix E) over the phone with the researcher. Thirty-one African American men and women (11 and 20 respectively) 50-65 years of age participated in the pilot test; all were heterosexual and a third had completed graduate school or beyond (Table 4.1). Approximately a third of participants were divorced and the majority had an annual income of \$50,000 or more.

Table 4.1 Demographic Characteristics of Pilot Study Participants (N = 31)

Demographic Characteristic	Mean (SD)
Mean Age	57 (4.28)
Gender	N (%)
Male	11 (35.5)
Female	20 (64.5)
TOTAL	31 (100)
Education	
Grades 9 through 11	1 (3.2)
Grade 12 or GED	3 (9.7)
1 to 3 years of college	11 (35.5)
4 or more years of college	4 (12.9)
Graduate or professional degree	11 (35.5)
Refused	1 (3.2)
TOTAL	31 (100)
Income	
\$25,000 to less than \$35,000	1 (3.2)
\$35,000 to less than \$50,000	3 (9.7)
\$50,000 to less than \$75,000	11 (35.5)
\$75,000 or more	13 (41.9)
Refused	3 (9.7)
TOTAL	31 (100)
Marital Status	
Married	10 (32.3)
Widowed	2 (6.5)
Living with Partner	1 (3.2)
Divorced	11 (35.5)
Separated	2 (6.5)
Never Married	5 (16.1)
TOTAL	31 (100)
Dating (non-married) n =22	
Yes	12 (54.5)
No	10 (45.5)
TOTAL	22 (100)

A total of 26 participants completed the feedback interview (8 men and 18 women). While 23 of 26 responded ‘no’ to all seven questions about the survey (e.g. were there any survey items/questions you had difficulty understanding, were you uncomfortable with any of the survey items/questions, were there any words that you did not know the meaning of or did not understand), almost half (11) provided additional comments/feedback beyond the seven survey items asked. A readability analysis using the Flesch Reading Ease test found that the online survey text rated 61.6, which is interpreted as a standard reading level. When translating the Flesch Reading Ease measure into the Flesch-Kincaid Grade Level, the online survey text was found to be at a readability level expected to be understandable by an average 8th grade student.

When the participants were asked, ‘Were there any items/questions we should not have asked?’ one person felt the question about ‘how many times you had sex in a calendar year’ should not have been at the end of the survey. When asked to explain this response, the participant felt it should have been at the beginning of the survey before all the other questions had been asked because “it just makes more sense being first, it's like you answer all those other questions, then you have to think about that too.” Another person felt the question ‘what is your income’ should not have been asked because it was private and not relevant to the other questions being asked.

Two respondents provided feedback when asked ‘Were there any items/questions we should have asked but did not?’ One person felt we should have asked about their STD history because it can be related to HIV. Another felt we could have asked if the person’s sexuality was questionable “...sometimes you may have that thought in the back of your mind-- if the guy was on the down low...it would be interesting to see how many

people thought that...”. Eleven respondents provided additional general comments/feedback beyond the seven survey questions asked about the survey related processes (completion and follow up interview).

The researcher read through all responses provided numerous times and grouped them based on similarities. Because the original researchers who developed the SRBSS deemed it appropriate for use in an adolescent population, this feedback provided valuable information on the usability in an older population, specifically if the constructs were good measures. The feedback centered around: 1) what your friends believe, 2) relationship status, 3) sexual activity, and 4) the follow up interview process.

What Your Friends Believe

The online survey contained six items about ‘what your friends believe’ regarding sexual activity and condom use. Of the three people providing comments, all felt the items were not applicable for their age group:

“The section about "what your friends think" doesn't really fit people my age. People don't really talk about it with each other. Maybe different for younger ages but people my age don't. I don't even discuss condoms with my best friend.”

“I wasn't sure about the questions regarding what my friends would think. I don't talk with them about my sexual behavior so it was difficult to answer those questions...”

“I thought the questions about what your friends thought weren't really applicable. I don't talk in depth about those types of things with my friends so this section was difficult to answer.”

Relationship Status

The majority of survey items had to do with sexual activity and condom use. Respondents who provided feedback felt many of the survey questions were geared more toward single people and did not take in account married people or those in monogamous relationships:

“At first I felt the questions were geared towards single people. Wasn't sure if I should keep going or not.”

“There may be some obvious differences in responses based on peoples’ culture and marital status.”

“The questions about condoms seemed irrelevant for people in monogamous relationships.”

“Depending on the marital/relationship status that may make some people uncomfortable...some people are more sexually open than others....”

“Some questions were difficult to answer true to form...there were a lot of underlying considerations such as if your partner was a new one or old one...the answers would vary.”

“As a married person, some questions about using condoms didn't seem to take into consideration long standing committed relationships. Seemed to assume you were young, had multiple partners or were dating.”

Sexual Activity

Participants were asked to estimate the number of times they had been sexually active over the past year as well as the number of times a condom was used during those encounters. Respondents who provided feedback (n = 3) felt these questions were difficult to answer:

“Asking how many times you've had sex in a year was hard to answer. I mean, if you're seeing someone and really into them and are together 2-3 times a week that can add up to a lot. Maybe asking about a shorter time frame would be better.”

“Qs 31 & 32 that ask the number of times you were sexually active and condoms used. I realized that you could not type text/words in after the fact. It would be good if you could indicate that maybe after the question.”

“The question that asks about how many times you had sex in the past year would not let me put the true answer in. I'm married and if you consider several times a week, it adds up. So I put a number in but it wasn't the real number...”

Follow up Interview

When agreeing to participate in the pilot study, participants completed both the on-line survey and a follow up interview with the researcher. Respondents who provided feedback expressed concern regarding the follow-up interview:

“..feel the phone call eliminates the anonymity so people may be reluctant to call.”

“I'm answering these follow-up questions a while after taking the survey. Maybe the survey structure should force the participant to answer these follow-up questions immediately following the survey. At this point I don't remember any specifics of the questions themselves just how I felt while taking the survey. Also the phone call part is a bit tricky..I wasn't very comfortable discussing this type of private information with you. This may impact others as well...”

“It seems weird to have to call and talk to you about this...glad you weren't asking questions from the survey..I wouldn't want to tell you my business about those things.”

Based on the above feedback, specific adjustments were made to the survey. First, when asked ‘please estimate the number of times you were sexually active within the past year’ and ‘please estimate the number of times a condom was used while you were sexually active within the past year,’ a prompt was added directly under those items stating: ***Enter a numeric value only.*** An adjustment was then made to the online survey program to allow respondents to input numbers as high as ‘999.’

4.2 Survey

The purpose of the online survey was to examine attitudes, norms, self-efficacy and barriers regarding sexual activity and condom use in African Americans 50 to 65 year of age. Two hundred fifteen (215) people responded to the online survey (Appendix F). Of the 215 respondents, 175 completed the survey, 33 did not complete the survey and 7 did not agree to participate. Of the 175 respondents, there were 83 men and 92

women with an average age of 57 (SD = 4.79); the majority were heterosexual; a third had completed graduate school or beyond; nearly half were married and the majority had an annual income of \$50,000 or more (Table 4.2).

Table 4.2 Demographics Characteristics of Survey Participants (N = 175)

Demographic Characteristic		Mean (SD)
Age	Mean Age	57 (4.79)
		N (%)
Gender	Male	83 (47.4)
	Female	92 (56.6)
TOTAL		175 (100)
Education	Grades 9 through 11	1 (.6)
	Grade 12 or GED	23 (13.1)
	1 to 3 years of college	54 (30.9)
	4 or more years of college	31 (17.7)
	Graduate/professional degree	65 (37.1)
	Refused	1 (.6)
TOTAL		175 (100)
Income	Less than \$10,000	6 (3.4)
	\$10,000 to less than \$15,000	8 (4.6)
	\$15,000 to less than \$20,000	11 (6.3)
	\$20,000 to less than \$25,000	3 (1.7)
	\$25,000 to less than \$35,000	16 (9.1)
	\$35,000 to less than \$50,000	21 (12)
	\$50,000 to less than \$75,000	34 (19.4)
	\$75,000 or more	68 (38.9)
	Don't Know	1 (.6)
	Refused	7 (4)
TOTAL		175 (100)
Sexual Orientation	Heterosexual	167 (95.4)
	Homosexual	3 (1.7)
	Bisexual	5 (2.9)
TOTAL		175 (100)
Marital Status	Married	76 (43.4)
	Widowed	10 (5.7)
	Living with Partner	11 (6.3)
	Divorced	44 (25.1)
	Separated	5 (2.9)
	Never Married	29 (16.6)
TOTAL		175 (100)
Dating (non-married) n = 99	Yes	39 (39.4)
	No	57 (57.6)
	Other	3 (3)
	TOTAL	99 (100)

A little over one third of the study sample (n = 65) was highly educated having a graduate or professional degree (37%) with an income above \$75,000 (39%) and just over half of survey participants were not married (57%). The majority of participants had been sexually active in the past year (66%). Of those who were sexually active (n = 116), 60% did not use condoms. When calculating effect size, the researcher anticipated there a moderate difference in gender and marital status; specifically, that males would use condoms at a lower rate than females and that married individuals would use condoms at lower rates than those non-married. These assumptions were partially supported. When comparing across gender and marital status, of the respondents who did use condoms (n = 47), men (62%) used condoms more than women (38%) and married (71%) respondents used condoms less than those non-married (29%) (Table 4.3).

Table 4.3 Condom Use by Gender and Marital Status (n = 116)

Condom use during sex in the past year	Gender n (%)		
	Male	Female	Total
Yes	29 (61.7)	18 (38.3)	47 (100)
No	33 (47.8)	36 (52.2)	69 (100)
Totals	62 (53.4)	54 (46.6)	116 (100)

Condom use during sex in the past year	Marital Status n (%)		
	Married	Non-married	Total
Yes	15 (31.9)	32 (68.1)	47 (100)
No	49 (71.0)	20 (29.0)	69 (100)
Totals	64 (55.2)	52 (44.8)	116 (100)

The online survey was based upon the Sexual Risk Behavior Beliefs and Self-Efficacy Scales (SRBBS) (Basen-Enquist, et al., 1999), which consists of eight scales measuring attitudes, norms, self-efficacy and barriers to sexual activity and condom use. Factor analyses and reliability analyses were conducted on the survey items to determine

whether the psychometrics properties of the scales were acceptable given the use of a different sample in this study.

4.2.1. Factor Analyses

Intercourse Involvement Scales

A factor analysis was conducted on the 9 sexual intercourse items using the varimax rotation method. To be included in the factor analysis, factors must 1) have a minimum of three variables, 2) factor loadings must be greater than .3, and 3) cannot have factor loadings above .3 on two or more factors. All nine variables met the criteria. Three factors emerged that met the required criterion (Eigenvalue = 1). Using the initial factor method, the first factor had an eigenvalue of 2.98 and accounted for 33.1% of the total variance, the second had an eigenvalue of 1.92 (21.3% of total variance), and the third had an eigenvalue of 1.12 (12.5% of total variance) (Table 4.4).

Table 4.4 Factor Analysis of Intercourse Involvement Items

Factor 1: Attitudes About Sexual Intercourse (33.1%)	Factor Loading
People my age can be sexually active with a steady partner*	.966
People my age can be sexually active with several different people in the same month	.966
My friends believe it's OK for people my age to be sexually active with a steady partner*	.473
Factor 2: Norms About Sexual Intercourse (21.3%)	Factor Loading
My friends believe people my age should still be sexually active	.766
My friends believe it's OK for people my age to be sexually active with several different people in the same month	.469
Factor 3: Self-Efficacy In Refusing Sex (12.5%)	Factor Loading
How sure are you that you could keep from having sex (social event)?	.789
How sure are you that you could keep from having sex until you feel ready (relationship)?	.867
How sure are you that you could keep from having sex (partner w/o condom)?	.710

*Indicates reverse coded item.

After using the varimax rotation method, the variance remained nearly the same (Factor1 = 2.68, Factor2 = 1.91, Factor3= 1.42). Variables with factors loadings above .4 were divided into *a priori* factors identified by Basen-Enquist et al., (1999). Three items addressed attitudes about sexual activity, three items addressed self-efficacy in refusing sex and two items addressed norms about sexual intercourse.

Condom Use Scales

A factor analysis was also conducted on the 19 condom use items using the varimax rotation method. Five factors emerged that met the required criterion (Eigenvalue = 1). Using the initial factor method, the first factor had an eigenvalue of 5.21 and accounted for 27.4% of the total variance, the second had an eigenvalue of 3.37 (17.7% total variance), the third had an eigenvalue of 1.39 (7.3% total variance), the fourth had an eigenvalue of 1.30 (6.9% total variance) and the fifth had an eigenvalue of 1.19 (6.3% total variance). After using the varimax rotation method, the variance was more evenly distributed (Factor1 = 3.90, Factor2 = 3.22, Factor3= 2.12, Factor4 =1.64, and Factor5 =1.58).

All 19 variables met the inclusion criteria. Variables with factor loadings above .4 were divided into slightly different factors than those identified by Basen-Enquist et al., (1999). In the original SRBBS, three items addressed attitudes about condoms use, three addressed norms about condom use, and three addressed barriers to condom use. In this study, six items addressed thoughts about condom use, four items addressed self-efficacy in using/buying condoms, three items addressed barriers to buying condoms, two addressed barriers to using condoms and three items addressed self-efficacy when communicating about condoms (Table 4.5).

Table 4.5 Factor Analysis of Condom Use Items

Factor 1: Thoughts About Condom Use (24.7%)	Factor Loading
Condoms should be used if a person my age is sexually active.	.758
Condoms should always be used even if pregnancy is not possible.	.773
Condoms should always be used even if people know each other very well.	.690
My friends believe condoms should be used if a person my age is sexually active.	.871
My friends believe condoms should always be used even if pregnancy is not possible.	.869
My friends believe condoms should always be used even if people know each other well.	.757
Factor 2: Self-Efficacy In Using/Buying Condoms (17.7%)	Factor Loading
How sure are you that you could use a condom correctly?	.843
How sure are you that you could explain to your partner how to use a condom correctly?	.835
How sure are you that you could go to the store and buy a condom?	.670
How sure are you that you could have a condom with you when you needed it?	.343
Factor 3: Barriers To Buying Condoms (7.3%)	Factor Loading
It would be embarrassing to buy condoms in a store.	.436
I would feel uncomfortable carrying condoms with me.	.787
It would be wrong to carry a condom because it means I'm planning to have sex.	.798
Factor 4: Barriers To Using Condoms (6.9%)	Factor Loading
Having to put a condom on before sex would be a hassle.	.756
Sex wouldn't feel as good if condoms were used.	.767
Factor 5: Self-Efficacy In Condom Communication (6.3%)	Factor Loading
How sure are you that you could tell your current partner you want to start using condoms?	.447
How sure are you that you could tell your new partner you want to use condoms?	.795
How sure are you that you could convince your partner to use condoms (with pregnancy not possible but to prevent HIV)?	.674

4.2.2. Reliability Analyses

Internal consistency reliabilities of the eight scales identified in the factor analyses were assessed (Table 4.6). Reliabilities ranged from .89 for the six item “thoughts about condom use” scale to .09 for the two item “norms about sexual intercourse” scale. While the general acceptable level is .7, an Alpha value of at least 0.5 is acceptable within a short instrument (15 items or less) (Kehoe, 1995).

Table 4.6 Reliability Analyses of Scales	Cronbach's α	Items per scale
Intercourse Involvement Scales		
Attitudes about Sexual Intercourse	.795	3
Self-Efficacy in Refusing Sex	.705	3
Norms about Sexual Intercourse	.093	2
Condom Use Scales		
Thoughts about Condom Use	.886	6
Self-Efficacy in Buying/Using Condoms	.761	4
Barriers to Buying Condoms	.755	3
Barriers to Using Condoms	.567	2
Self-Efficacy in Condom Communication	.459	3

Seven of the eight scales had an alpha reliability coefficient above or close to .5 and the 'norms about sexual intercourse scale' was an unreliable measure. When examining Cronbach's alpha when items were deleted, five of the remaining scales had improved levels of reliability if one of the included items was deleted (Table 4.7). In subsequent analyses, scales with the deleted items were used.

Table 4.7 Reliability if Item Deleted Analyses	Cronbach's α if item deleted	Final Items per scale
Intercourse Involvement Scales		
Attitudes about Sexual Intercourse	1.00	2
Self-Efficacy in Refusing Sex	.736	2
Condom Use Scales		
Thoughts about Condom Use	.886	6
Self-Efficacy in Buying/Using Condoms	.809	3
Barriers to Buying Condoms	.794	2
Barriers to Using Condoms	.567	2
Self-Efficacy in Condom Communication	.487	2

4.2.3. Final Scales

The final intercourse involvement and condom use scales for this sample were different from the original SRBBS scales (Table 4.8). The current study scales had a total of 19 items and half of the scales grouped the same as the original SRBBS. There were two scales intended to measure norms—one regarding sexual intercourse and the other

regarding condom use. In the factor analysis, the norms about condom use scale merged with the attitudes about condom use scale to form a new scale, “thoughts about condoms use.” The norms about sexual intercourse scale was not reliable and therefore not entered into the regression model. This finding is consistent with feedback from pilot study participants and follow-up interviewees where respondents indicated their friends beliefs were not important in their decision making about condom use. The barriers to condom use scale from the SRBBS was split into two separate scales in the current study, barriers to buying condoms and barriers to using condoms. This is consistent with the survey findings which showed study participants were very comfortable with purchasing condoms and that actually using condoms would be a hassle to them.

Table 4.8 Current Study Final Scales (with scale scores) vs. SRBBS

Intercourse Involvement Scales	Cronbach's α	# of items	Mean (SD)	Score Range	N
Attitudes about Sexual Intercourse	1.00	2	7.71 (.90)	2 to 8	175
Self-Efficacy in Refusing Sex	.74	2	3.01 (1.23)	2 to 6	175
Norms about Sexual Intercourse	.09	2	4.24 (1.10)	2 to 8	175
Condom Use Scales	Cronbach's α	# of items	Mean (SD)	Score Range	N
Thoughts about Condom Use	.89	6	10.41 (3.92)	6 to 24	175
Self-Efficacy in Condom Communication	.49	2	2.42 (.74)	2 to 6	175
Self-Efficacy in Using/Buying Condoms	.81	3	3.63 (1.23)	3 to 9	175
Barriers to Buying Condoms	.79	2	6.70 (1.79)	2 to 8	175
Barriers to Using Condoms	.57	2	6.23 (1.72)	2 to 8	175

SRBBS Scales	Cronbach's α	Final Items
Intercourse Involvement Scales		
Attitudes about sexual intercourse	.78	2
Norms about sexual intercourse	.78	2
Self-efficacy in refusing sex	.70	3
Condom Use Scales		
Attitudes about condom use	.87	3
Norms about condom use	.84	3
Self-efficacy in condom communication	.66	3
Self-efficacy in using and buying condoms	.61	3
Barriers to condom use	.73	3

4.2.4. Regression Models

Research Question 1: Do attitudes, norms, self-efficacy or barriers best predict condom use in African Americans 50 to 65 years of age?

Logistic regression analyses (enter method) were conducted to determine which scales (attitudes about sexual activity; self-efficacy in refusing sex; thoughts about condom use; self-efficacy in buying condoms; barriers to buying condoms; barriers to using condoms and condom communication self-efficacy) best predicted the likelihood of condom use in older African Americans. Significant associations were found for two of the Condom Use scales, thoughts about condom use and barriers to using condoms. Three items in the scale ‘thoughts about condom use’ were significant predictors of condom use: 1) Individuals who believed that condoms should always be used even if the two people know each other very well were 179% more likely to have used condoms, OR = 2.79, (95%CI 1.19 - 6.56); 2) Individuals who felt their friends believed that condoms should always be used even if pregnancy is not possible were 351% more likely to have used condoms, OR = 4.51, (95%CI 1.37 - 14.89); and 3) Individuals who felt their friends believed that condoms should always be used even if the two people know each other very well were 61% less likely to have used condoms, OR = .39, (95%CI .16 - .96) (Table 4.9). One item in the barriers to using condoms scale was significant (Table 4.10); Individuals who believed that having to put on a condom before sex would be a hassle were 51% less likely to have used condoms, OR = .49, (95%CI .29 - .82). No significant relationships were found between condom use and the remaining five scales (attitudes about sexual activity, self-efficacy in refusing sex, self-efficacy in buying condoms, barriers to buying condoms, condom communication self-efficacy).

Table 4.9 Logistic Regression on Thoughts about Using Condoms (N = 116)

	Sig. (p value)	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Condoms should be used if a person my age is sexually active.	.843	1.119	.366	3.424
Condoms should always be used even if pregnancy is not possible.	.458	.683	.249	1.872
Condoms should always be used even if people know each other very well.	.019	2.792	1.187	6.564
My friends believe condoms should be used if a person my age is sexually active.	.956	.967	.293	3.191
My friends believe condoms should always be used even if pregnancy is not possible.	.013	4.509	1.366	14.887
My friends believe condoms should always be used even if people know each other well.	.040	.389	.158	.956

Table 4.10 Logistic Regression on Barriers to Using Condoms (N = 116)

	Sig. (p value)	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Having to put a condom on before sex would be a hassle.	.006	.488	.292	.815
Sex wouldn't feel as good if condoms were used.	.481	.880	.617	1.255

Research Question 2: Does age, education level, gender, income, marital status or health care provider influence affect condom use?

Logistic regression analyses (enter method) were conducted to determine which demographic variables affect the likelihood of condom use in older African Americans. Four of the control variables were found to have a significant relationship with using condoms: health care provider influence OR = 4.48, (95%CI 1.50 - 13.41) and gender OR = 4.69, (95%CI 1.49 - 14.70) increased the likelihood of condom use. Individuals whose health care providers talked to them about safer sexual activities were 348% more likely to use condoms and men were 369% more likely to use condoms than women. Education level OR = .59, (95%CI .36 - .99) and marital status OR = .14, (95%CI .05 - .40)

decreased the likelihood of condom use by 41% and 86% respectively (Table 4.11).

Individuals who were married or had lower levels of education were less likely to use condoms.

Table 4.11 Control Variables Associated with Condom Use (N = 116)

	Sig. (p value)	Odds Ratio	95% C.I.	
			Lower	Upper
Does your health care provider talk to you about safer sexual activity such as using condoms, STD/HIV education, dental dams, etc.?	.007	4.477	1.495	13.408
Age 55 to 59 vs. 50 to 54	.648	.777	.264	2.291
Age 60 to 65 vs. 50 to 54	.150	.425	.132	1.364
What is your gender?	.008	4.687	1.494	14.703
What is your highest grade or year in school completed?	.046	.593	.356	.990
What is your annual household income from all sources?	.178	1.211	.916	1.602
What is your current marital status?	.000	.138	.047	.404

Logistic regression analyses (enter method) were then conducted with the significant control variables (health care provider influence, gender, education level, and marital status) and each of the significant scale items. When examining significant variables from the scale ‘thoughts about condom use,’ all variables were retained in the model and all of the variables remained significant predictors of condom use (Table 4.12). When examining significant variables from the scale, ‘barriers to using condoms,’ all variables were retained in the model and all but one of the control variables (education) remained significant (Table 4.13). When both the significant independent and control variables were entered into the models, significance level, odds ratios and/or likelihood of condom use changed for several variables (Table 4.14).

Table 4.12 Significant Predictors (Thoughts) and Control Variables (N = 116)

	Sig. (p value)	Odds Ratio	95% C.I.	
			Lower	Upper
Condoms should always be used even if people know each other very well.	.005	3.828	1.502	9.758
My friends believe condoms should always be used even if pregnancy is not possible.	.000	11.539	3.470	38.369
My friends believe condoms should always be used even if people know each other well.	.007	.202	.063	.647
Does your health care provider talk to you about safer sexual activity such as using condoms, STD/HIV education, dental dams, etc.?	.002	8.021	2.145	29.992
What is your gender?	.000	17.516	3.978	77.129
What is your highest grade or year in school completed?	.018	.503	.285	.888
What is your current marital status?	.000	.046	.012	.177

Table 4.13 Significant Predictors (Barriers) and Control Variables (N = 116)

	Sig. (p value)	Odds Ratio	95% C.I.	
			Lower	Upper
Having to put a condom on before sex would be a hassle.	.021	.526	.305	.909
Does your health care provider talk to you about safer sexual activity such as using condoms, STD/HIV education, dental dams, etc.?	.004	4.814	1.645	14.087
What is your gender?	.010	4.474	1.433	13.971
What is your highest grade or year in school completed?	.080	.660	.414	1.051
What is your current marital status?	.000	.147	.054	.404

Table 4.14 Comparison of Univariate and Adjusted Regression Models

Thoughts about Condom Use	<i>Separate Regression Model</i>				<i>Adjusted Regression Model</i>			
	Sig. (p value)	Odds Ratio	95% Confidence Interval		Sig. (p value)	Odds Ratio	95% Confidence Interval	
			Lower	Upper			Lower	Upper
Condoms should always be used even if people know each other very well.	.019	2.792	1.187	6.564	.005	3.828	1.502	9.758
My friends believe condoms should always be used even if pregnancy is not possible.	.013	4.509	1.366	14.887	.000	11.539	3.470	38.369
My friends believe condoms should always be used even if people know each other well.	.040	.389	.158	.956	.007	.202	.063	.647
Does your health care provider talk to you about safer sexual activities?	.007	4.477	1.495	13.408	.002	8.021	2.145	29.992
What is your gender?	.008	4.687	1.494	14.703	.000	17.516	3.978	77.129
What is your highest grade or year in school completed?	.046	.593	.356	.990	.018	.503	.285	.888
What is your current marital status?	.000	.138	.047	.404	.000	.046	.012	.177

Barriers in Using Condoms	<i>Separate Regression Model</i>				<i>Adjusted Regression Model</i>			
	Sig. (p value)	Odds Ratio	95% Confidence Interval		Sig. (p value)	Odds Ratio	95% Confidence Interval	
			Lower	Upper			Lower	Upper
Having to put a condom on before sex would be a hassle.	.006	.488	.292	.815	.021	.526	.305	.909
Does your health care provider talk to you about safer sexual activities?	.007	4.477	1.495	13.408	.004	4.814	1.645	14.087
What is your gender?	.008	4.687	1.494	14.703	.010	4.474	1.433	13.971
What is your highest grade or year in school completed?	.046	.593	.356	.990	.080	.660	.414	1.051
What is your current marital status?	.000	.138	.047	.404	.000	.147	.054	.404

When examining the significant ‘thoughts’ variables with health care provider influence, gender, education and marital status there were several changes: 1) the percentage of individuals who were more likely to use condoms if they believed condoms should always be used even if the two people know each other very well, improved by 104%; 2) the percentage of individuals who were more likely to use condoms if their friends believed condoms should always be used even if pregnancy is not possible, improved by 703%; and 3) the percentage of individuals who were less likely to use condoms if their friends believed condoms should always be used even if the two people know each other very well, increased by 19%. The impact of provider influence increased by 354%, gender increased by 1283% while education level decreased by 9% and marital status decreased by 9%. When examining the significant ‘barrier’ item with health care provider influence, gender, education and marital status, the percentage of individuals who were less likely to use a condom if they felt putting on a condom before sex would be a hassle decreased by 4%. The impact of provider influence decreased by 34%, gender decreased by 21%, education level decreased by 7% and marital status remained relatively constant with a 1% increase.

In summary, the online survey was found to be understandable, acceptable, readable and appropriate for use by pilot study participants. Regression models found that thoughts about condom use and a barrier to using condoms were significant factors in predicting the likelihood of condom use; several demographic variables affected the relationship with condom use (marital status, gender, education, income, and health care provider influence).

4.3 Interviews

Follow-up interviews were conducted to further explain and enrich quantitative findings; ten respondents participated in the interviews, three men and seven women. All interview participants were heterosexual African Americans, with a mean age of 57 years (SD = 4.9). All interviewees had completed high school—three completed high school or earned their GED, two had some college, one had earned a college degree and four had completed graduate school. Of the six interviewees who provided income information, four had an annual income of \$50,000 or higher. Eight participants were not married and six were currently dating. Preliminary study findings from the survey were presented to each interviewee and they were asked their opinion about possible explanations for the findings (Table 4.15).

As discussed in the methods section, content analysis was conducted on the interview data in order to further inform the quantitative findings. Each audiotape was transcribed verbatim into written text and the responses were analyzed to identify recurring themes. This process was done in two phases. First, half of the participants complete interview responses were listed under the corresponding question, read several times and then placed into categories and coded with a key word. This process was facilitated through the use of an excel worksheet. Next, the remaining participant responses were analyzed using the same process and no additional categories and codes were added. The analysis yielded six major themes: 1) trust and relationships, 2) lack of knowledge about HIV/AIDS, 3) attitudes about condom use, 4) sexual activity, 5) health care providers, and 6) friends opinions, described below.

Table 4.15 Preliminary Study Findings/ Interview Questions

1. Regarding the question: I believe condoms should always be used if a person my age has sex, even if pregnancy is not possible, 61% of female respondents definitely agreed while only 46% of male respondents definitely agreed. a. Why do you think people felt this way? b. What impact do you believe this has on increasing HIV rates in older African Americans?
2. Considering the question: I believe condoms should always be used if a person my age has sex, even if the two people know each other well, only 41% of respondents definitely agreed. a. What factors do you think influence people feeling this way? b. How does relationship status impact the level of agreement?
3. Regarding the question: Most of my friends believe it's OK for people my age to be sexually active with several different people, 'probably yes' was the most common answer for males and 'probably no' was the most common answer for females. a. What factors do you think influence these feelings? b. Do you believe a person's friends really impact their decision to have multiple sexual partners? If so, how?
4. Considering the question: Most of my friends believe condoms should always be used if a person my age has sex, even if the two know each other well. a. How do your friends' beliefs impact your feelings about condom use? b. How does relationship status impact the level of agreement?
5. Regarding the statement: Sex wouldn't feel as good if condoms were used. The majority of respondents strongly disagreed. a. Do you believe this is an honest feeling? Why or why not?
6. 75% of the survey participants reported that their health care provider does not talk to them about safer sexual activity such as using condoms, dental dams, etc. a. Is this surprising to you? Why or why not? b. How do you feel this impacts the increasing rates of HIV infection in African Americans 50 to 65?
General Comments: Is there anything else you would like to talk about as far as older adults and condom use is concerned? What about older adults and sexually transmitted diseases, or HIV, or sexual activity in general?

Theme 1: Trust and Relationships

The themes of trust, relationships and monogamy emerged in response to half of the interview questions. Nearly all respondents (n = 9) felt being in a relationship inferred a commitment that garnered an automatic level of trust that often leads to not using condoms:

“People in committed relationships tend to be more trusting of their partners and less likely to use condoms.”

“For the women - what gets us is that in a relationship we feel we don't need them (condoms) anymore, not thinking of HIV at all...”

“We (older adults) feel if we know the person and we consider the age makes it less likely that we need it (condoms). We may start using them but don't keep them up.”

“If a couple is married, they assume monogamy so therefore, condoms are not required.”

“One on one relationship status usually implies that if HIV tests are negative, after six months, condoms are no longer required.”

“The longer the relationship the higher the false sense of security...when the news came out about higher rates (HIV) we are all shocked.”

“People tend to trust if they've been in long relationships so they don't feel the person is unsafe...I only know a few people who will ask for a medical history.”

Most respondents (n = 7) also felt condom use presented a ‘trust’ issue in some relationships:

“Men traditionally they feel 'if you trust me I don't need to wear a condom'.”

“Women are sometimes reluctant to ask partners to use condoms because it's a sign of distrust”

“Women who trust too much can get caught up because of the guys on the ‘down low’.”

“Probably... if brought up (condoms) one or the other may feel that someone's cheating.”

“The amount of time people have known each other, the commitment to the relationship, fear that men will reject them if they force the condom issue...all factor into if you use a condom...”

“If you 'trust' your partner, you wouldn't require them to wear a condom and most men would rather ‘walk’ than use one and most females would rather not use them than lose the man.”

And a few respondents (n = 4) were strong supporters of using condoms:

“In my opinion, you wear condoms until you get married. It doesn't matter if you're dating or living together...”

“Relationship status does play a part...after 2-3 months, you should still wear condoms...maybe wait until you both get tested 'together'...”

“It helps the relationship because some make mistakes when they don't use them...I always used them when I was dating my wife...still use them now sometimes...it's a personal decision.”

“Relationship status doesn't impact my level of condom use.”

Theme 2: Lack of Knowledge

A lack of knowledge about HIV emerged as a theme amongst older adults. The majority of respondents (n = 8) felt people their age were not aware HIV was in issue with older adults and that most were not aware of their HIV or STD status or that of their partners:

“HIV is 'in your face', you hear about it, you know the impact of it. Like Magic Johnson, if it can happen to him, it can happen to anybody. You have to be open and talk about it.”

“A lot of women, uninformed about HIV and traditionally they probably didn't use condoms in the beginning,”

“I think women in my age group think that STDs are contracted by young people...”

“...people don't get examined to find out if they have something so they just keep spreading it.”

“...if they don't know who their partners are, they can spread diseases like HIV.”

“You can look at someone who looks nice but hey they may have something so even with condoms you never know.”

“Personally, I have always thought that senior men did not have HIV much...”

“We just don't think about it and think it's more a young persons' thing...we're 'beyond that'. I think we're more aware of HIV but don't really think about STDs.”

Theme 3: Attitudes about Condom Use

Attitudes about condom use emerged as a theme in response to four of the interview questions. Half of the interview respondents (n = 5) did not agree with a survey finding that sex felt just as good while using a condom:

“Men are more aggressive and want to feel everything, they don't want to wear anything, they want to 'feel good' but at any age you should use condoms.”

“It doesn't feel natural to them...men or women.”

“No because they're lying!!! You can't feel the 'fluids' properly with a condom on which effects the pleasure you feel.”

“No because a lot of people prefer not to use condoms. They want to feel the 'juices'.”

“Without condoms is definitely better...but it's better to be safe than sorry...”

“For the men in this age range, a lot are being to have difficulty with erections so then it's difficult to use the condoms...so they don't like to use them.”

The other half of interview respondents (n = 5) seemed to agree with the survey finding that sex felt just as good while using a condom:

“Yes, from a personal perspective...I'm married but I still have box (condoms) and I just want to put one on from time to time to spice things up! They have all these new ones with pleasure stuff on them...”

“I think for the most part women don't feel a difference and I don't know what guys feel...we hear it feels different, but I never had a guy tell me either way.”

It does feel the same with or without, if you can get an orgasm what difference does it make...”

“This is my honest feeling. I hope this is honest for the majority of respondents. I wonder if this is an honest response because of the increasing HIV rates...”

"This actually may be honest for some because of the improvement in condoms over the years. They now have ones that are thinner or the ones that are supposed to be more pleasurable...condoms are better than in years past but natural tends to feel better.”

Theme 4: Sexual Activity

Sexual activity in older adults emerged as a theme amongst the older adults.

Respondents provided various opinions about sexual activity; specifically many interviewees (n = 6) believed multiple partners were more acceptable for men as opposed to women:

“Men don't think it's wrong to have more than one partner...they don't think of it as 'wear and tear' on them, but the average female don't want the 'wear and tear' so they'll limit the number of partners they have.”

“For men they're usually in the moment and not thinking about the implication of what happens with multiple partners. So a man thinks if he has multiple partners he's 'the man'. Women tend to be more respectful of their bodies and not have several partners.”

“I think my age group believes that males can be sexually active with several people but females that do the same are considered promiscuous.”

“Most women my age want to be in a committed relationship...most women are concerned about their reputation...where most men are not.... I wouldn't want to be thought of as 'sleeping around'.”

“...most men feel like the more partners you have makes you 'the man'. And some women actually have some of the same thoughts nowadays.”

Respondents also shed insight on their attitudes about sexual activity in older adults:

“At our age, think first, talk with your partner...not like the old days where you meet someone and ‘get you a little bit’...I was talking to someone today, he said he had 4 women and I hope he has a crate of condoms too!!!”

“...thinking things like "we grew up together" or "she's a good girl". You have to know (their status) not just base it on how you ‘think’ they are.”

“Our mindset might allow us to feel we can have multiple partners because we came up in a time where it was acceptable ‘free love’ but as we get older we feel we should be more straight laced.”

“You need to carefully pick and choose partners...not everyone has the same values...”

“Women are not really risk takers so they realize they can get AIDS regardless of their age...Men on the other hand take more risks, they don't think with the 'big' head.”

“For me, I feel as long as I can do it I can do it, I ask my wife, how she feels and she thinks I want it 24/7...sometimes she'll tell me to go upstairs and wait for her but she knows I fall asleep so she stalls...”

“I'm all for sex if your parts work!! Older people tend to be intimidated by sex toys too...they should try them out...that may reduce these increasing rates (HIV)!”

Theme 5: Health Care Providers

All respondents shared that their health care provider did not talk to them about safer sexual activity; however, two respondents initiated discussions with their providers:

“No, mine hasn't not even my OB...but I had a nurse practitioner who did contract work with my doctor and she did talk about it...”

“No they normally don't....it's not their job.”

“No, they probably think women my age are fairly well educated on the subject.”

“I don't think they have time or take the time to discuss this topic.”

“No mine doesn't but it was surprising to my doctor when I asked her some questions about my libido and testosterone levels and my sexual activity and how Viagra was not working for me. She told me I needed to consider all the different medications I was taking and how they can impact my sex drive.”

“My doctor talks to me when I ask for AIDS tests. We have very open conversations about what I am doing...what I should be doing. And I'm always aware of my past because at one point I did have multiple partners. So I got tested frequently.”

Respondents also discussed how this lack of dialogue was impacting the increasing HIV rates in their age group:

“It has a big effect...if you're doctor doesn't talk to you about it you may not know what's really going on...you may not know your risk.”

“HIV can be in your body for what 10 years...early partners may have exposed you to the disease. So your doctor should be checking with you as you get older.”

“I think stuff like this puts it on our minds...not sure if changes will be made but health care providers could help impact our behavior if they did because we listen to what they have to say.”

“It (HIV) increases because they (health care providers) probably don't think we're active and it's a misconception, I think, as people get older, they tend to have more sex.”

“If you as a patient don't protect yourself from HIV/STDs, the rates will continue to rise. I don't think health care officials tend to weigh in nor work to reduce risks in older African Americans.”

“I think this has a direct impact because, I think that some people unfortunately do not know how crucial it is to practice safe sex after child bearing years. I think that women in my age group think about condoms for contraception not STDs.”

“Definitely! People, especially senior singles, would listen to their doctors rather than discuss intimate topics with friends.”

Theme 6: What Your Friends Believe

Based on respondents' feedback, it became evident that what their friends believe has little to no impact on their personal actions or what they believe. The majority of respondents (n = 8) shared they do not discuss sexual activity or condom use with their friends:

“The most of my friends' part I can't comment on because we don't discuss...but I think if we talked about it, it would be an impact. We would have a sense of how 'we' (black women) think about it or how we'll conduct ourselves...it's helpful when you hear others stories.”

“Guys talk about sex more but not really about condoms...White women do talk about it though, so black women who associate more with white women may...we (black women) weren't raised to talk about it...”

“Most people my age make their own decisions about sexual involvement.”

“People have to use their own minds. And friends may give bad advice if they're 'hating'. Like you may have a friend who is jealous of your relationship and tell you things that may cause problems in your relationship...”

“My friends don't impact it and most of them don't use condoms anyway.”

“Not at all, it's my life and it's my decision...I decide the risk I'm willing to take.”

“Only one friend has ever said anything about condoms to me so it doesn't have much impact.”

“Older women don't discuss sexual activity, at least not in details such as condom use, among their friends. That is just the way we were raised.”

In summary, the follow-up interviews, which presented specific study findings to ten respondents, yielded six themes (trust and relationships, lack of knowledge about HIV/AIDS, attitudes about condom use, sexual activity, health care providers, and friends' opinions) that may potentially shed light on condom use and sexual activity in older African Americans. If findings are used to create educational programs, these research data have potential use in reducing the spread of HIV and STDs in this population.

Chapter 5: Discussion, Recommendations and Conclusions

A pilot study, on-line survey and follow up interviews were conducted with African Americans 50 to 65 years of age to determine factors that best predicted condom use in a subset of this population. In this chapter, possible explanations for the study findings are presented. Additionally, strengths, limitations, and implications as they relate to recommendations and future research are discussed.

5.1 Overview of Study Findings

Findings from this study identified factors which may impact condom use in African Americans 50 to 65 years old. A little over one third of the study sample was highly educated having a graduate or professional degree with an income above \$75,000. Just over half of survey participants were not married and the majority had been sexually active in the past year. Of those who were sexually active, most did not use condoms and those who did use condoms were mostly men.

When examining the first research question (Do attitudes, subjective norms, self-efficacy or barriers best predict condom use in African Americans 50 to 65 years of age?) regression models found significant associations with four variables in the condom use model. Two items from the ‘thoughts about condom use’ scale were found to increase the likelihood of using condoms; 1) feeling condoms should be used even if people know each other well and 2) friends feeling condoms should be used even if pregnancy isn’t possible. One item from this same scale, friends feeling condoms should be used even if people know each other well, was found to decrease the likelihood of condom use. Some of these findings were consistent with data from the follow-up interviews, specifically

those who were strong supporters of condoms reporting usage. Two of the significant survey items dealt with ‘what friends thought;’ however interviewee feedback was not consistent with this finding. The majority of interview respondents did not talk to their friends about condom use and they reported their friends opinions did not impact their decision to use condoms. One item from the ‘barriers to condom use’ scale, using condoms would be a hassle, was found to decrease the likelihood of condom use. The interviewee feedback was split down the middle regarding condom use, with half feeling condoms made sex less pleasurable and the other half sharing sex felt the same with or without condoms. Most of the interview feedback regarding condom use focused on diminished sexual pleasure while using condoms. Only one respondent indicated condoms may be difficult to use for men struggling with erectile dysfunction. Furthermore, there was a feeling that condoms were not needed if in a committed relationship.

When examining the second research question (Does age, education level, gender, income, marital status, and provider influence affect condom use?) regression analyses indicated that provider influence, gender, education and marital status significantly predicted the likelihood of condom use. In the combined regression model assessing thoughts about condom use (condoms should be used even if people know each other well, friends feel condoms should be used even if pregnancy isn’t possible, friends feel condoms should be used even if people know each other well) and control variables, there was an increase or decrease in the likelihood of condom use for all of the variables included in the model. In the combined regression model assessing barriers to condom

use (using condoms would be a hassle), the likelihood of condom use decreased for each of the variables and education becoming non-significant.

5.2 Study Implications

There are several important implications of this research study. Information identified in this study regarding significant variables found to increase or decrease condom use can be used in future prevention/intervention programs to increase condom use in older African Americans. This information may help fill a gap in HIV prevention efforts as this target population is often overlooked (Genke, 2000), while the rates of HIV continue to rise (NIA, 2009) in this group. Based on study findings, addressing the role health care providers can play in educating older African Americans about condom use and HIV prevention is important. Clearly older adults are sexually active, but they may not perceive themselves as at risk for HIV—they frequently do not use condoms or get tested for HIV (Henderson et al., 2004; Lindau et al., 2006). While the majority of individuals in this study population reported engaging in sexual activity in the past year; less than half of those individuals used condoms. Many health care professionals may underestimate older patients' risk for HIV/AIDS, missing prime opportunities to deliver prevention messages or offer HIV testing (Boskey, 2011; Lindau, et al., 2007). Health care providers are often viewed as authorities on the subject (Fitzpatrick, Stevenson & Sommers, 2005) so they could encourage their patients to practice safer sex and know their HIV/STD status.

There are various reasons health care providers may not talk with older adults about sexuality including discomfort or not thinking older adults are still sexually active. Brick, Lunquist, Sandak, and Taverner (2009) developed a train-the-trainer manual

entitled, “Older, Wiser, Sexually Smarter: 30 Sex Ed Lessons for Adults Only”, which provides step-by-step directions and handouts that enables a facilitator to provide engaging interactive sessions about sexuality. This manual has been used to train students in medical and dental schools on the importance of discussing sexuality with older adults. Brick (2009) considers knowledgeable professionals to be the ‘key’ to social change in enabling older adults to surpass barriers to sexual health and happiness. Trainings such as this can be incorporated as a required component of medical school education and/or continuing medical education credits required of practicing providers, especially those in geriatric medicine and providers who serve large numbers of older adults.

Another suggestion is to address the significant predictors of condom use in this sample, thoughts about condom use and barriers to using condoms. Older adults past childbearing age may not feel susceptible to pregnancy or sexually transmitted diseases (STDs), as they tend to associate them with younger generations (AIDS InfoNet, 2011; Williams & Donnelly, 2002). The primary population targeted by the major U.S. condom manufacturers (Trojan, Durex and Lifestyles) is 18 to 34 year old males and advertisers often focus on outlets frequented by this population (i.e. TV: MTV, BET, Comedy Central; Print: Maxim, Men’s Health, ESPN magazines) (DASH Communications Co., n.d.). These selected advertising mediums make it more unlikely that older African Americans will be exposed to these ads; hence they may be unaware of the vast improvements made in condoms over the years. This is important as many respondents in the current study stated they did not use condoms because it did not feel ‘natural’ and reduced feelings of pleasure. One interviewee shared, “You can’t feel the ‘fluids’ properly with a condom, which effects the pleasure,” while another interviewee shared “...a lot of

people prefer not to use condoms. They want to feel the 'juices'." Between the three major companies, there are 65 condom options ranging from ultra thin to ribbed to vibrating. For this reason, a condom awareness campaign for older African Americans could potentially contribute to an increase in positive thoughts/ attitudes about condom use and simultaneously reduce barriers to condom use in this population. Older adults are one-sixth as likely to use condoms during sex and one fifth as likely to be tested for HIV compared to younger adults (Mack and Ory 2003; Stall & Catania, 1994). The majority of individuals in this study who reported sexual activity in the past year (n = 116), did not use condoms. Of those who did use condoms (n = 47), 62% were men and 38% were women. The percentage of women who used condoms in this study were higher than those in previous studies (Schick et al., 2010 = 24%, Sormanti & Shibusawa, 2007 = 12%, Lindau et al., 2006 = 28%). While, that the samples in the previous studies varied in size and makeup, these findings across studies clearly indicate that older adults are not using condoms thereby supporting the increasing rates of HIV infection.

5.2.1 Recommendations

Based upon the study findings, there is an apparent need for a paradigm shift in society regarding how older adults and their sexuality are viewed. Because older African Americans are actively engaged in sexual activity, there is a need to educate and reinforce the importance of condom use. More aggressive prevention/intervention efforts are warranted, such as an awareness campaign emphasizing that 'condoms aren't just for contraception.' This type of message, coupled with information on the alarming rise in HIV rates in older African Americans, could be dispersed through various ways including the use of health care providers, magazines (AARP), churches, social groups,

fraternities/sororities, social media and television/print ads. This researcher also recommends building messages around findings in this study that condoms should always be used even if people know each other well or pregnancy is not possible (i.e. ‘Condoms = ‘safe’ anytime, anyplace’).

Furthermore, this study revealed the need for health care providers to talk with their older adult patients about the risk for HIV/STDs and the importance of condom use. Health care providers need to actively engage older African Americans in dialogue similar to what they do with their younger patients to determine whether older adults are sexually active and if so, with how many partners. They also need to talk with older adults about practicing safer sex and the importance of knowing their HIV and STD status. To combat the rising rates of HIV, these study findings suggest recommending regular screenings for HIV/STDs among sexually active older African Americans. Regular screenings for HIV in older adults may potentially lead to an increased dialogue between patients and providers specific to sexual behaviors and safer sexual activities. An anticipated result of this increased dialogue is increased awareness of HIV/STDs thereby decreasing the risk of transmitting HIV/STDs.

5.3 Strengths and Limitations

This research study had a number of strengths. First, several qualitative themes were identified that may be incorporated in HIV prevention and intervention efforts for older African American adults. Second, this study contributes to our current understanding of factors that most influence condom use in older African Americans (condoms should always be used even if the people know each other well, even if pregnancy isn’t possible and that using condoms was a hassle) and the demographic

variables that are likely to increase (provider influence, gender) or decrease (marital status, education) condom use. Third, the use of the online survey as the primary data collection method for this exploratory study was a strength. Web-based surveys are economical and more efficient when compared to mail or in-person surveys.

Additionally, being able to complete the survey in the privacy of one's home was likely an advantage, given the sensitive nature of many of the survey items. The use of web-based surveys is considered a valid and reliable method of conducting social science research (Ladner, Wingenbach & Raven, 2002).

This research study also had several limitations. First, while the use of the online survey was a strength, it was also a limitation. This mode of data collection automatically creates a barrier for individuals who do not readily have access to the internet.

Additionally, this generation that may not be computer literate nor have high reading/comprehension levels as other populations. Second, recruiting pilot study participants was challenging, taking longer than anticipated to complete. Pilot study participants feedback indicated a level of discomfort discussing the subject matter with the researcher due to the age difference between the researcher and respondents and the sensitive nature of the topic. In addition, the need to schedule a separate interview was identified as a barrier. Third, all participants were recruited through the use of purposive sampling techniques. The findings cannot be generalized to the general population of 50-65 older African Americans because many in this sample are highly educated and upper middle class. Fourth, the follow-up interviews yielded insightful information but was not as rich as anticipated. This may be attributed to similar feelings among interviewees and pilot study participants (discomfort discussing sexual issues and age difference between

the researcher and respondents). However, this may have been alleviated by the inclusion of more interview participants to allow for saturation in responses.

5.4 Future Research

While this mixed methods exploratory study provides greater insight on factors associated with condom use among older African Americans, research to further investigate additional topics would be beneficial to this population. First, the impact of relationship status and trust, which often leads to decreased condom use, should be examined. The CDC's Diffusion of Effective Behavioral Interventions project (DEBI), has several effective interventions, including Sisters Informing Sisters about Topics on AIDS (SISTA) (DiClemente & Wingood, 1995), Sisters Informing Healing Living and Empowering (SHILE) (DiClemente et al., 2004), and Sister to Sister (Jemmott, Jemmott, & O'Leary, 2007) for younger African American women and NIA: A Program of Purpose (Kalichman, Cherry, Browne-Sperling, 1999) for African American men. Although each of these interventions focuses on empowerment issues and risk reduction, there is a need to adapt existing interventions or create new ones specifically targeting older African Americans. As indicated in the follow-up interviews, some older African American women may be willing to forego condom use to maintain a relationship if it creates issues of mistrust between them and their partner. In this instance, women could certainly benefit from information and skills related to empowerment specific to condom use negotiation within existing relationships. Because many older African Americans were reared viewing condom use as a means of pregnancy prevention only, these interventions could be geared toward changing perceptions of condom use by focusing on the importance of HIV/STD risk reduction.

Second, while men on the ‘down low’ is often viewed as an issue affecting younger to middle aged African Americans, it is unclear how this ‘phenomenon’ is affecting older African Americans. Because interview respondents overwhelmingly felt that relationship status and trust led to low rates of condom use, it would be important to determine what, if any, impact the ‘down low’ phenomenon may have on that decision. Homosexuality is much more acceptable in the society at large today than it was during the time older African American males were growing up and it is still less accepted in many African American communities. Many African American males who identify as homosexual may feel trapped between the conflicting views of their identities and how their community views them (strong leader, head of the household vs. homosexual, weak, emasculated) (Byrd, 2001). Further investigation into what impact this has on older African American males is warranted.

Third, a risk reduction model could be developed and deployed through the use of health care providers to determine the direct impact of provider influence on safer sex behaviors in this population. Older African Americans should be encouraged to talk with their health care providers about sex and risk reduction as this is something they may not have grown up doing. Ideally, health care providers could serve as a key partner in intervention efforts geared toward older adults. A research study could be conducted with current providers obtaining continuing medical education credits to examine the impact of the training manual entitled “Older, Wiser, Sexually Smarter: 30 Sex Ed Lessons for Adults Only” by Brick, et al. (2009). If proven effective, this could be another potential method of reducing the spread of HIV/STDs in older adults.

Fourth, contrasting views expressed about condom use in this sample warrants further investigation. Interview data suggest that ‘what friends think’ (norms) questions were not important considerations in condom use as it is often not discussed among older adults. Additionally, in contrast to their younger counterparts where levels of self-efficacy (high or low) were associated with condom use (Basen-Engquist et al., 1999; Giles, Liddell, & Bydawell, 2005; Paniagua & O’Boyle; 2008; Winningham et al., 2004), self-efficacy did not emerge as a significant predictor of condom use in this population during the quantitative data analyses. Focus groups and/or in-depth interviews may prove to be successful means of further examining these notions as predetermined survey responses limit the understanding of why a particular answer was selected versus another. Fifth, the inclusion of items to assess STD history and number of sexual partners may provide further insight on condom use in this population. If an older adult has a history of STDs, some inferences can be made regarding their condom use behavior. Also, older adults with multiple partners may have different levels of condom use depending on partner type (i.e. no condom use with main partner vs. condom use with other partners). Last, the view of condom use as a hassle needs to be addressed in future studies. It is apparent that negative views of condoms decrease the likelihood of condom usage. As previously indicated, an awareness campaign could prove beneficial if it changes perceptions regarding condom use (condoms are not just for contraception, condoms can enhance sexual pleasure) in older African Americans.

5.5 Conclusions

Four independent variables (three items from the ‘thoughts about condom use’ scale and one item from the ‘barriers to condom use’ scale) and four control variables (provider influence, gender, income, marital status) were found to significantly predict the likelihood of condom use (Table 5.1).

Table 5.1 Summary of Predictors of Condom Use

	<i>Increased Use</i>	<i>Decreased Use</i>
<i>Independent Variables</i>	Feeling condoms should be used even if people know each other well	Friends feeling condoms should be used even if people know each other well
	Friends feeling condoms should be used even if pregnancy isn’t possible	Thinking that using condoms would be a hassle
<i>Control Variables</i>	Provider influence	Being married
	Being Male	Lower education levels

This research study found that norms alone and self-efficacy were not significantly related to condom use in this population. Positive thoughts toward condom use were found to increase condom use (condoms should always be used even if the people know each other well, even if pregnancy isn’t possible) and barriers, specifically feeling that using condoms was a hassle, were found to decrease condom use. The incorporation of a ‘condom use campaign’ geared toward this population may be a key component in education and intervention efforts that seek to reduce the rapidly increasing rates of HIV/STDs in this group. In addition, when planning prevention efforts, relationship status must be taken into consideration. Interview data suggest somewhat of a ‘ripple’ effect when it comes to relationships: monogamy and relationships often infer an automatic trust level, but trust can come into question at the suggestion of condom

use. If a woman has a strong desire to continue a relationship she may not be willing to risk it by requiring condom use even though exposure to HIV and/or STDs can occur through unprotected sex. An empowerment component for women may be essential when developing a program to address relationship and trust issues that may arise around condom use. The role of health care providers emerged as a key finding in the quantitative and qualitative phases of this research study. In both regression models health care provider influence significantly increased the likelihood of condom use. Provider influence also emerged as a theme in the follow-up interviews. Because health care providers are often viewed as authority figures and older adults may interface with them more frequently as they continue to age, involving health care providers in efforts to decrease rates of HIV/STDs is imperative.

In conclusion, the quantitative portion of the research made unique contributions to predicting condom use in older African Americans. The variables attitudes and barriers were found to best predict condom use in older African Americans and provider influence, marital status, being male and education levels also contributed in understanding the likelihood of condom use in this population. The qualitative portion of the research helped to further explain the quantitative findings through six themes (trust and relationships, lack of knowledge about HIV/AIDS, attitudes about condom use, sexual activity, health care providers, and friends' opinions). The *trust and relationship* theme revealed that the topic of condom use may lead to distrust in relationships. The *lack of knowledge* theme confirmed that this age group was not aware of their risk for HIV or the increasing rates in their age group. The *attitudes about condom use* theme provided insight as to why people in this population may not want to use condoms but

also that some in the population have more positive view towards condom use. The *sexual activity* theme revealed that this group believed it is more acceptable for males to have multiple partners versus females in the population. The findings in this theme were consistent with the prevailing view held by society at large that it's okay for men to 'sleep around' (The Rawness, 2007). The *health care provider* theme confirmed that health care providers do not talk with older adults about safer sexual activities and also indicated that this information from providers would likely have an impact on prevention behaviors as providers are often viewed as authority figures (D'Aprix, 2011). The *friends' opinion's* theme indicated that what friends think does not impact personal decisions made by this population which contrasted to findings from the statistical data. The data gathered from this mixed methods research study provides insight into understanding older adults and their attitudes, norms, self-efficacy and barriers regarding condom use, relationships, sexual activity and the influence of their gender, marital status and health care providers, by filling a gap in the research on HIV in older African Americans.

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APPENDIX A

List of Organizations for Sample Recruitment

CHURCHES

Reid Temple AME Church
11400 Glenn Dale Boulevard
Glenn Dale, MD 20769-9049
(301) 352-0320

From the Heart Church Ministries
4949 Allentown Road
Suitland MD 20746
301-899-9411

Sargent Memorial Presbyterian
5109 Nannie Helen Burroughs Ave
Washington D.C., DC 20019-5593
(202) 396-1710

Alfred Street Baptist Church
301 South Alfred Street
Alexandria, VA 22314-3670
(703) 683-2222

SORORITIES AND FRATERNITIES

Prince George's County Alumnae Chapter
Delta Sigma Theta Sorority, Inc.
P.O. Box 3604, Capitol Heights, Maryland 20791
Telephone: (301) 736-3250

Washington DC Alumnae Chapter
Delta Sigma Theta Sorority, Inc.
P.O. Box 90202, Washington, DC, 20090
Fax: 888-259-4398

The Iota Gamma Omega Chapter
Alpha Kappa Alpha Sorority, Inc.
P.O. Box 421, Lanham, MD 20706

Kappa Alpha Psi Fraternity, Inc.
Hyattsville/Landover (MD) Alumni Chapter
P. O. Box 2639, Hyattsville, MD 20784
Kappa Line: 1-888-4HL-1911

Lambda Gamma Gamma Chapter
Omega Psi Phi Fraternity, Inc.
P.O. Box 1787, Clinton, MD 20735

Gamma Pi Chapter
Omega Psi Phi Fraternity, Inc.
P.O. Box 4112, Capitol Heights, MD 20791

SENIOR CENTERS

Hollin Hall Senior Center
1500 Shenandoah Road, Alexandria, VA
(703) 765-4573

Robert L Walls Senior Citizen Center
4339 Bowen Road Southeast, Washington D.C.
(202) 581-7360

Berwyn Heights Senior Center
8603 57th Avenue, Berwyn Heights, MD 20740
301-474-0018

Bowie Senior Center
14900 Health Center Drive, Bowie, MD 20716
301-809-2300

Brandywine Senior Center
8000 Dyson Road, Brandywine, MD 20613
301-372-0436

Camp Springs Senior Activity Center
6420 Allentown Road, Camp Springs, MD 20748
301-449-0490

Evelyn Cole Senior Center
5720 Addison Road, Seat Pleasant, MD 20743
301-386-5525

Langley Park Senior Activity Center
1500 Merrimac Dr., Hyattsville, MD 20783
301-408-4343

Oasis Senior Center
3500 East West Highway, Hyattsville, MD 20782
301-559-6575

Phelps Senior Center
422 Montgomery Street, Laurel, MD 20707
301-776-6168

Jericho City of Praise Senior Living
1000 Brightseat Road, Landover, MD 20785
(301) 841-6711

ACTIVITY CENTER

Prince George's County Sports and Learning Center
8001 Sheriff Road, Landover, MD 20785-4258
(301) 583-2400

Ina A. Ramos
301-860-4306
<http://tinyurl.com/iarsurvey>

APPENDIX C

Online Survey Recruitment Email Script

January 2012

Dear Community Member,

In order to better understand the issues related to sexual health that face African American men and women 50 to 65 years of age, I am conducting dissertation research under the guidance of Dr. Sharon Desmond, faculty member in the School of Public Health at the University of Maryland College Park (UMCP). This Institutional Review Board approved study will consist of participating in an online survey. As a public health doctoral student at UMCP, I am very interested in understanding the attitudes and beliefs older African Americans have about sexual activity and condom use. This population is often underrepresented in studies regarding sexual health and I would like to begin to change that. As a participant in this online survey you would have an opportunity to improve our understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. Furthermore, your participation will help a graduate student complete her dissertation research.

We are looking for African American men and women:

- 50 to 65 years old
- who live in the Washington, DC metropolitan area?

If you would like to participate in our online survey, please visit the following link <http://tinyurl.com/iarsurvey>. This online survey should take no more than 20 minutes, and our survey system will guide you step-by-step. If you are interested in participating in our online survey or have any other questions, please feel free to contact us.

Sincerely,

Ina A. Ramos
301-860-4306
ijones2@umd.edu

Dr. Sharon Desmond
301-405-2526
desmond@umd.edu

APPENDIX D

Paper Version of PILOT Online Survey with Consent Form

INFORMED CONSENT

Purpose of the study

This research is being conducted by Dr. Sharon M. Desmond [Principal Investigator] and Ms. Ina A. Ramos [Student Investigator] at the University of Maryland, College Park. The purpose of this research project is to identify your attitudes and beliefs regarding sexual activity and condom use. We are inviting you to participate in this research project because you represent the population we wish to better understand (African American men and women between the ages of 50-65).

Procedures

First, complete this online survey without interruption. Second, contact the student investigator to set up a brief telephone interview. Third, carefully review the paper version of the online survey taking notations of any items you did not understand, were uncomfortable answering or that you feel should have been included or excluded. Last, during the telephone interview, you will provide your answers/information to the student researcher who will complete a Pilot Study Feedback Form.

Potential Risks and Discomfort

There are no known risks associated with completing this survey or the feedback form. However, the topic matter may be sensitive because it deals with sexual behavior. Reading and responding to the survey questions could possibly cause feelings of shame, embarrassment or discomfort when thinking about your past or current sexual behaviors.

Potential Benefits

The benefits to you include freedom of self-expression. There may be altruistic benefits as well. We hope that, in the future, other people might benefit from this study through improved understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. Furthermore, your participation will help a graduate student complete her dissertation research.

Confidentiality

A number of steps will be taken to ensure confidentiality. Personally identifiable data (e.g., email addresses) will be stored in a separate file from other data, and no one will have access to any files except the research team (Dr. Sharon M. Desmond and Ms. Ina A. Ramos). If a report or article is written about this research, results will be written and described in an aggregate format (only reporting combined results and never reporting individual results) and your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland,

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College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.

Right to Withdraw and Questions

You may choose not to take part at all. If you do decide to participate, you may stop participating at any time. If you decide not to participate or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. If you decide to stop taking part in the study, or if you have questions, concerns, or complaints, please contact the investigator, Dr. Sharon M. Desmond [Principal Investigator] at: 301-405-2526 or desmond@umd.edu or Ms. Ina A. Ramos [Student Investigator] at 301-860-4306 or ijones2@umd.edu.

Participant's Rights

If you have questions about your rights as a research participant or wish to report a research-related injury, please contact: University of Maryland College Park Institutional Review Board Office, 1204 Marie Mount, College Park, Maryland, 20742. E-mail: irb@umd.edu. Telephone: 301-405-0678. This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Statement of Consent

By selecting the Agree button, you are indicating that you are at least 18 years of age; you have read this consent form; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You may print a copy of this signed consent form. If you agree to participate, please select Agree below. If you do not want to participate, please select Disagree below.

- ☐ Agree (1)
- ☐ Disagree (2)

If Disagree Is Selected, Then Skip To – We are sorry you do not want to participate in this online survey...

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Your beliefs. For the following questions, please mark the answer that best describes how you feel. Please note: When responding to these questions, sexual activity is defined as heterosexual vaginal, anal or oral intercourse.

1. I believe people my age should still be sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
2. I believe it is OK for people my age to be sexually active with a steady partner.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
3. I believe it is OK for people my age to be sexually active with several different people in the same month.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
4. I believe condoms should be used if a person my age is sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
5. I believe condoms should always be used if a person my age has sex, even if pregnancy is not possible.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
6. I believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no

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What do your friends believe? The following questions ask about your FRIENDS and what they think. Even if you're not sure, please mark the answer you think best describes what they think.

7. Most of my friends believe people my age should still be sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
8. Most of my friends believe it is OK for people my age to be sexually active with a steady partner.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
9. Most of my friends believe it is OK for people my age to be sexually active with several different people in the same month.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
10. Most of my friends believe condoms should be used if a person my age is sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
11. Most of my friends believe condoms should always be used if a person my age has sex, even if pregnancy is not possible.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
12. Most of my friends believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no

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How sure are you? Imagine that the following situations were to happen to you. Please tell us how sure you are that you could do what is described.

13. Imagine you met someone at a social event. He or she wants to have sex with you. Even though you are very attracted to each other, you're not ready to have sex. How sure are you that you could keep from having sex?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
14. Imagine you are in a relationship, but you have not had sex. Your partner really wants to have sex. Still, you don't feel ready. How sure are you that you could keep from having sex until you feel ready?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
15. Imagine you and your partner decide to have sex but he or she will not use a condom. You do not want to have sex without a condom. How sure are you that you could keep from having sex, until your partner agrees it is OK to use a condom?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
16. Imagine you and your partner have been having sex but have not been using condoms. You really want to start using condoms. How sure are you that you could tell your partner you want to start using condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
17. Imagine you are having sex with someone you just met. You feel it is important to use condoms. How sure are you that you could tell that person you want to use condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
18. Imagine that pregnancy is no longer possible. You want to use condoms to keep from getting an STD or HIV. How sure are you that you could convince your partner that you still need to use condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all

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19. How sure are you that you could use a condom correctly?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
20. How sure are you that you could explain to your partner how to use a condom correctly?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
21. How sure are you that if you told your partner you wanted to start using condoms, that is what the two of you would do?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
22. If you wanted to get a condom, how sure are you that you could go to the store and buy one?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
23. If you decided to have sex, how sure are you that you could have a condom with you when you needed it?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all

What do you think about condoms? For the following questions, please mark the answer that you think best describes how much you agree or disagree with the following statements.

24. It would be embarrassing to buy condoms in a store.
- ☐ I strongly agree
 - ☐ I kind of agree
 - ☐ I kind of disagree
 - ☐ I strongly disagree
25. I would feel uncomfortable carrying condoms with me.
- ☐ I strongly agree
 - ☐ I kind of agree
 - ☐ I kind of disagree
 - ☐ I strongly disagree

APPENDIX D

26. It would be wrong to carry a condom with me because it would mean that I'm planning to have sex.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

27. Having to put a condom on before sex would be a hassle.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

28. Using a condom would be embarrassing.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

29. Sex wouldn't feel as good if condoms were used.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

Sexual activity. The following questions are about your sexual activity over the past year. Please answer to the best of your ability. Again, sexual activity is described as vaginal, anal or oral intercourse.

30. Have you been sexually active within the past year?

- ☐ Yes
- ☐ No

If No Is Selected, Then Skip To – Does your health care provider talk to you about safer sexual activity...

31. Please estimate the number times you were sexually active within the past year.
_____ times

32. Please estimate the number of times a condom was used while you were sexually active within the past year.
_____ times

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33. Does your health care provider talk to you about safer sexual activity such as using condoms, STD/HIV education, dental dams, etc?

- ☐ Yes
- ☐ No

If Yes Is Selected, Then Skip To Demographics – The following questions will...

If No Is Selected, Then Skip To Demographics – The following questions will...

We are sorry that you do not wish to participate in this online survey. However, we ask that you would answer a few questions that will help us describe people who accessed our survey. Remember, we will only report this and all other information as grouped data.

Are you willing to provide some information about yourself?

- ☐ Yes
- ☐ No

If Yes Is Selected, Then Skip To – What is your age?

If No Is Selected, Then Skip To End of Survey.

Demographics. The following questions will help us describe our research participants. Remember, we will only report this and all other information as grouped data.

34. What is your age?

35. What is your gender?

- ☐ Male
- ☐ Female

36. What is your race?

- ☐ White (1)
- ☐ Black or African American (2)
- ☐ Asian (3)
- ☐ Native Hawaiian or Other Pacific Islander (4)
- ☐ American Indian or Alaska Native (5)
- ☐ Other (6) _____

37. What is your ethnicity?

- ☐ Hispanic or Latino (1)
- ☐ Not Hispanic or Latino (2)

38. What is your highest grade or year of school completed?

- ☐ Never attended school or only attended kindergarten (1)
- ☐ Grades 1 through 8 (Elementary) (2)

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- ☐ Grades 9 through 11 (Some high school) (3)
- ☐ Grade 12 or GED (High school graduate) (4)
- ☐ 1 to 3 years of college (Some college or technical school) (5)
- ☐ 4 or more years of college (College graduate) (6)
- ☐ Graduate or professional degree (JD, PhD, MD, MS, etc) (7)
- ☐ Refused (8)

39. What is your annual household income from all sources?

- ☐ Less than \$10,000 (1)
- ☐ \$10,000 to less than \$15,000 (2)
- ☐ \$15, 000 to less than \$20,000 (3)
- ☐ \$20,000 to less than \$25,000 (4)
- ☐ \$25,000 to less than \$35,000 (5)
- ☐ \$35,000 to less than \$50,000 (6)
- ☐ \$50,000 to less than \$75,000 (7)
- ☐ \$75,000 or more (8)
- ☐ Don't Know (9)
- ☐ Refused (10)

40. What is your sexual orientation?

- ☐ Heterosexual (1)
- ☐ Homosexual (2)
- ☐ Bisexual (3)
- ☐ Trans-gender (4)

41. What is your current marital status?

- ☐ Married (1)
- ☐ Widowed (2)
- ☐ Living with partner (3)
- ☐ Divorced (4)
- ☐ Separated (5)
- ☐ Never married (6)

42. Are you currently dating anyone?

- ☐ Yes -- how long? (1) _____
- ☐ No (2)
- ☐ Other (3) _____

Follow Up Interview

Are you willing to participate in a follow up face to face interview?

- ☐ Yes -- please provide your email address (1) _____
- ☐ No (2)

Thank you for your participation!

APPENDIX E

Pilot Study Feedback Form

1. Were there any survey items/questions you had difficulty understanding?
2. Were there any words that you did not know the meaning of or did not understand?
3. Were you uncomfortable with any language used in the survey items/questions?
4. Were you uncomfortable with any of the survey items/questions?
5. Were there any survey items/questions that made you feel embarrassed?
6. Were there any survey items/questions we should not have asked?
7. Were there any survey items/questions you feel we should have asked?
8. Are there any additional comments you would like to add?

Paper Version of Online Survey with Consent Form

INFORMED CONSENT

Purpose of the study

This research is being conducted by Dr. Sharon M. Desmond [Principal Investigator] and Ms. Ina A. Ramos [Student Investigator] at the University of Maryland, College Park. The purpose of this research project is to identify your attitudes and beliefs regarding sexual activity and condom use. We are inviting you to participate in this research project because you represent the population we wish to better understand (African American men and women between the ages of 50-65).

Potential Risks and Discomfort

There are no known risks associated with completing this survey. However, the topic matter may be sensitive because it deals with sexual behavior. Reading and responding to the survey questions could possibly cause feelings of shame, embarrassment or discomfort when thinking about your past or current sexual behaviors.

Potential Benefits

The benefits to you include freedom of self-expression. There may be altruistic benefits as well. We hope that, in the future, other people might benefit from this study through improved understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. Furthermore, your participation will help a graduate student complete her dissertation research.

Confidentiality

A number of steps will be taken to ensure confidentiality. Personally identifiable data (e.g., email addresses) will be stored in a separate file from other data, and no one will have access to any files except the research team (Dr. Sharon M. Desmond and Ms. Ina A. Ramos). If a report or article is written about this research, results will be written and described in an aggregate format (only reporting combined results and never reporting individual results) and your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.

Right to Withdraw and Questions

You may choose not to take part at all. If you do decide to participate, you may stop participating at any time. If you decide not to participate or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. If you decide to stop taking part in the study, or if you have questions, concerns, or

APPENDIX F

complaints, please contact the investigator, Dr. Sharon M. Desmond [Principal Investigator] at: 301-405-2526 or desmond@umd.edu or Ms. Ina A. Ramos [Student Investigator] at 301-860-4306 or ijones2@umd.edu.

Participant's Rights

If you have questions about your rights as a research participant or wish to report a research-related injury, please contact: University of Maryland College Park Institutional Review Board Office, 1204 Marie Mount, College Park, Maryland, 20742. E-mail: irb@umd.edu. Telephone: 301-405-0678. This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Statement of Consent

By selecting the Agree button, you are indicating that you are at least 18 years of age; you have read this consent form; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You may print a copy of this signed consent form. If you agree to participate, please select Agree below. If you do not want to participate, please select Disagree below.

- ☐ Agree (1)
- ☐ Disagree (2)

If Disagree Is Selected, Then Skip To – We are sorry you do not want to participate in this online survey...

APPENDIX F

Your beliefs. For the following questions, please mark the answer that best describes how you feel. Please note: When responding to these questions, sexual activity is defined as heterosexual vaginal, anal or oral intercourse.

1. I believe people my age should still be sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
2. I believe it is OK for people my age to be sexually active with a steady partner.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
3. I believe it is OK for people my age to be sexually active with several different people in the same month.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
4. I believe condoms should be used if a person my age is sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
5. I believe condoms should always be used if a person my age has sex, even if pregnancy is not possible.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
6. I believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no

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What do your friends believe? The following questions ask about your FRIENDS and what they think. Even if you're not sure, please mark the answer you think best describes what they think.

7. Most of my friends believe people my age should still be sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
8. Most of my friends believe it is OK for people my age to be sexually active with a steady partner.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
9. Most of my friends believe it is OK for people my age to be sexually active with several different people in the same month.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
10. Most of my friends believe condoms should be used if a person my age is sexually active.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
11. Most of my friends believe condoms should always be used if a person my age has sex, even if pregnancy is not possible.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no
12. Most of my friends believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
 - ☐ Definitely yes
 - ☐ Probably yes
 - ☐ Probably no
 - ☐ Definitely no

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How sure are you? Imagine that the following situations were to happen to you. Please tell us how sure you are that you could do what is described.

13. Imagine you met someone at a social event. He or she wants to have sex with you. Even though you are very attracted to each other, you're not ready to have sex. How sure are you that you could keep from having sex?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
14. Imagine you are in a relationship, but you have not had sex. Your partner really wants to have sex. Still, you don't feel ready. How sure are you that you could keep from having sex until you feel ready?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
15. Imagine you and your partner decide to have sex but he or she will not use a condom. You do not want to have sex without a condom. How sure are you that you could keep from having sex, until your partner agrees it is OK to use a condom?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
16. Imagine you and your partner have been having sex but have not been using condoms. You really want to start using condoms. How sure are you that you could tell your partner you want to start using condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
17. Imagine you are having sex with someone you just met. You feel it is important to use condoms. How sure are you that you could tell that person you want to use condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
18. Imagine that pregnancy is no longer possible. You want to use condoms to keep from getting an STD or HIV. How sure are you that you could convince your partner that you still need to use condoms?
 - ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all

APPENDIX F

19. How sure are you that you could use a condom correctly?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
20. How sure are you that you could explain to your partner how to use a condom correctly?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
21. How sure are you that if you told your partner you wanted to start using condoms, that is what the two of you would do?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
22. If you wanted to get a condom, how sure are you that you could go to the store and buy one?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all
23. If you decided to have sex, how sure are you that you could have a condom with you when you needed it?
- ☐ Totally sure
 - ☐ Kind of sure
 - ☐ Not sure at all

What do you think about condoms? For the following questions, please mark the answer that you think best describes how much you agree or disagree with the following statements.

24. It would be embarrassing to buy condoms in a store.
- ☐ I strongly agree
 - ☐ I kind of agree
 - ☐ I kind of disagree
 - ☐ I strongly disagree
25. I would feel uncomfortable carrying condoms with me.
- ☐ I strongly agree
 - ☐ I kind of agree
 - ☐ I kind of disagree
 - ☐ I strongly disagree

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26. It would be wrong to carry a condom with me because it would mean that I'm planning to have sex.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

27. Having to put a condom on before sex would be a hassle.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

28. Using a condom would be embarrassing.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

29. Sex wouldn't feel as good if condoms were used.

- ☐ I strongly agree
- ☐ I kind of agree
- ☐ I kind of disagree
- ☐ I strongly disagree

Sexual activity. The following questions are about your sexual activity over the past year. Please answer to the best of your ability. Again, sexual activity is described as vaginal, anal or oral intercourse.

30. Have you been sexually active within the past year?

- ☐ Yes
- ☐ No

If No Is Selected, Then Skip To – Does your health care provider talk to you about safer sexual activity...

31. Please estimate the number times you were sexually active within the past year.
_____ times

32. Please estimate the number of times a condom was used while you were sexually active within the past year.
_____ times

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33. Does your health care provider talk to you about safer sexual activity such as using condoms, STD/HIV education, dental dams, etc?

- ☐ Yes
- ☐ No

If Yes Is Selected, Then Skip To Demographics – The following questions will...

If No Is Selected, Then Skip To Demographics – The following questions will...

We are sorry that you do not wish to participate in this online survey. However, we ask that you would answer a few questions that will help us describe people who accessed our survey. Remember, we will only report this and all other information as grouped data.

Are you willing to provide some information about yourself?

- ☐ Yes
- ☐ No

If Yes Is Selected, Then Skip To – What is your age?

If No Is Selected, Then Skip To End of Survey.

Demographics. The following questions will help us describe our research participants. Remember, we will only report this and all other information as grouped data.

34. What is your age?

35. What is your gender?

- ☐ Male
- ☐ Female

36. What is your race?

- ☐ White (1)
- ☐ Black or African American (2)
- ☐ Asian (3)
- ☐ Native Hawaiian or Other Pacific Islander (4)
- ☐ American Indian or Alaska Native (5)
- ☐ Other (6) _____

37. What is your ethnicity?

- ☐ Hispanic or Latino (1)
- ☐ Not Hispanic or Latino (2)

38. What is your highest grade or year of school completed?

- ☐ Never attended school or only attended kindergarten (1)
- ☐ Grades 1 through 8 (Elementary) (2)

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- ☐ Grades 9 through 11 (Some high school) (3)
- ☐ Grade 12 or GED (High school graduate) (4)
- ☐ 1 to 3 years of college (Some college or technical school) (5)
- ☐ 4 or more years of college (College graduate) (6)
- ☐ Graduate or professional degree (JD, PhD, MD, MS, etc) (7)
- ☐ Refused (8)

39. What is your annual household income from all sources?

- ☐ Less than \$10,000 (1)
- ☐ \$10,000 to less than \$15,000 (2)
- ☐ \$15,000 to less than \$20,000 (3)
- ☐ \$20,000 to less than \$25,000 (4)
- ☐ \$25,000 to less than \$35,000 (5)
- ☐ \$35,000 to less than \$50,000 (6)
- ☐ \$50,000 to less than \$75,000 (7)
- ☐ \$75,000 or more (8)
- ☐ Don't Know (9)
- ☐ Refused (10)

40. What is your sexual orientation?

- ☐ Heterosexual (1)
- ☐ Homosexual (2)
- ☐ Bisexual (3)
- ☐ Trans-gender (4)

41. What is your current marital status?

- ☐ Married (1)
- ☐ Widowed (2)
- ☐ Living with partner (3)
- ☐ Divorced (4)
- ☐ Separated (5)
- ☐ Never married (6)

42. Are you currently dating anyone?

- ☐ Yes -- how long? (1) _____
- ☐ No (2)
- ☐ Other (3) _____

Follow Up Interview

Are you willing to participate in a follow up face to face interview?

- ☐ Yes -- please provide your email address (1) _____
- ☐ No (2)

Thank you for your participation!

APPENDIX G

Interviewer Guide

Thank you for participating in this interview. The purpose of this interview is to further explore some of the survey questions and enrich our findings. I would like to audiotape our discussion, would this be alright with you? In order to protect your identity and provide confidentiality, we will be using first names only which can be real or not. Your participation is completely voluntary and you may stop participating at any time. The interview should only take approximately 30 to 45 minutes. Do you have any questions? Do I have your permission to proceed? Okay, let's get started.

I agree to be
audiotaped:

YES _____
(initials)

NO _____
(initials)

1. Regarding the question: I believe condoms should always be used if a person my age has sex, even if pregnancy is not possible, 61% of female respondents definitely agreed while only 46% of male respondents definitely agreed.
 - a. Why do you think people felt this way?
 - b. What impact do you believe this has on the increasing HIV rates in older African Americans?
2. Considering the question: I believe condoms should always be used if a person my age has sex, even if the two people know each other well, only 41% of respondents definitely agreed.
 - a. What factors do you think influence people feeling this way?
 - b. How does relationship status impact the level of agreement?
3. Regarding the question: Most of my friends believe it's OK for people my age to be sexually active with several different people, 'probably yes' was the most common answer for males and 'probably no' was the most common answer for females.
 - a. What factors do you think influence these feelings?
 - b. Do you believe a person's friends really impacts their decision to have multiple sexual partners? If so, how?

APPENDIX G

4. Considering the question: Most of my friends believe condoms should always be used if a person my age has sex, even if the two know each other well
 - a. How do your friends' beliefs impact your feelings about condom use?
 - b. How does relationship status impact the level of agreement?
5. Regarding the statement: Sex wouldn't feel as good if condoms were used. The majority of respondents strongly disagreed.
 - a. Do you believe this is an honest feeling? Why or why not?
6. 75% of the survey participants reported that their health care provider does not talk to them about safer sexual activity such as using condoms, dental dams, etc.
 - a. Is this surprising to you? Why or why not?
 - b. How do you feel this impacts the increasing rates of HIV infection in African Americans 50 to 65?

Is there anything else you would like to talk about as far as older adults and condom use is concerned? What about older adults and sexually transmitted diseases, or HIV, or sexual activity in general? Thank you so much for your time!

APPENDIX H
Interview Consent Form

Project Title	Condom Use In African Americans: An Exploratory Study
Purpose of the Study	This research is being conducted by Dr. Sharon M. Desmond [Principal Investigator] and Ms. Ina A. Ramos [Student Investigator] at the University of Maryland, College Park. The purpose of this research project is to identify your attitudes and beliefs regarding sexual activity and condom use. We are inviting you to participate in this research project because you represent the population we wish to better understand (African American men and women between the ages of 50-65).
Procedures	At the start of the interview, you will be provided the purpose of the research and a description of its voluntary and confidential nature. Once any questions you have are answered, you will complete this consent form. You will then participate in an interview taking no more than 40 minutes. Upon completion of the interview, you will be asked to complete a brief demographic questionnaire.
Potential Risks and Discomforts	There are no known risks associated with completing this interview. However, the topic matter may be sensitive because it deals with sexual behavior. Hearing and responding to the interview questions could possibly cause feelings of shame, embarrassment or discomfort when thinking about your past or current sexual behaviors.
Potential Benefits	The benefits to you include freedom of self-expression. There may be altruistic benefits as well. We hope that, in the future, other people might benefit from this study through improved understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. Furthermore, your participation will help a graduate student complete her dissertation research.
Confidentiality	A number of steps will be taken to ensure confidentiality. Personally identifiable data (e.g., email addresses, telephone numbers) will be stored in a separate file from other data, and no one will have access to any files except the research team (Dr. Sharon M. Desmond and Ms. Ina A. Ramos). If a report or article is written about this research, results will be written and described in an aggregate format (only reporting combined results and never reporting individual results) and your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.
Medical Treatment	The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.

University of Maryland College Park

Page 2 of 2

Initials _____ Date _____

Right to Withdraw and Questions	<p>Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.</p> <p>If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator, Dr. Sharon M. Desmond [Principal Investigator] at: 301-405-2526 or desmond@umd.edu or Ms. Ina A. Ramos [Student Investigator] at 301-860-4306 or ijones2@umd.edu.</p>							
Participant Rights	<p>If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:</p> <p style="text-align: center;">University of Maryland College Park Institutional Review Board Office 1204 Marie Mount College Park, Maryland, 20742 E-mail: irb@umd.edu Telephone: 301-405-0678</p> <p>This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</p>							
Statement of Consent	<p><i>Your signature indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.</i></p> <p><i>If you agree to participate, please sign your name below.</i></p>							
Signature and Date	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">NAME OF SUBJECT [Please Print]</td><td style="width: 60%;"></td></tr> <tr> <td style="padding: 5px;">SIGNATURE OF SUBJECT</td><td></td></tr> <tr> <td style="padding: 5px;">DATE</td><td></td></tr> </table>	NAME OF SUBJECT [Please Print]		SIGNATURE OF SUBJECT		DATE		
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APPENDIX I

Interview Demographic Form

The following questions will help us describe our pilot study participants. We will only report this and all other information as grouped data.

Please write your answer or circle the letter of your response to the following questions:

1. What is your age?

2. What is your gender?
 - ☐ Male
 - ☐ Female
3. What is your race?
 - ☐ White (1)
 - ☐ Black or African American (2)
 - ☐ Asian (3)
 - ☐ Native Hawaiian or Other Pacific Islander (4)
 - ☐ American Indian or Alaska Native (5)
 - ☐ Other (6) _____
4. What is your ethnicity?
 - ☐ Hispanic or Latino (1)
 - ☐ Not Hispanic or Latino (2)
5. What is your highest grade or year of school you completed?
 - ☐ Never attended school or only attended kindergarten (1)
 - ☐ Grades 1 through 8 (Elementary) (2)
 - ☐ Grades 9 through 11 (Some high school) (3)
 - ☐ Grade 12 or GED (High school graduate) (4)
 - ☐ 1 to 3 years of college (Some college or technical school) (5)
 - ☐ or more years of college (College graduate) (6)
 - ☐ Graduate or professional degree (JD, PhD, MD, MS, etc) (7)
 - ☐ Refused (8)
6. What is your annual household income from all sources?
 - ☐ Less than \$10,000 (1)
 - ☐ \$10,000 to less than \$15,000 (2)
 - ☐ \$15,000 to less than \$20,000 (3)
 - ☐ \$20,000 to less than \$25,000 (4)
 - ☐ \$25,000 to less than \$35,000 (5)
 - ☐ \$35,000 to less than \$50,000 (6)
 - ☐ \$50,000 to less than \$75,000 (7)
 - ☐ \$75,000 or more (8)

APPENDIX I

- Don't Know (9)
- Refused (10)

6. What is your sexual orientation?

- Heterosexual (1)
- Homosexual (2)
- Bisexual (3)
- Trans-gender (4)

8. What is your current marital status?

- Married (1)
- Widowed (2)
- Living with Partner (3)
- Divorced (4)
- Separated (5)
- Never married (6)

9. Are you currently dating anyone?

- Yes -- how long? (1) _____
- No (2)
- Other (3) _____

Pilot Study Email Script

November 2011

Looking for Pilot Test Survey Participants

An exciting opportunity awaits you!

Ina Ramos and Dr. Sharon Desmond in the School of Public Health at the University of Maryland College Park are looking for people to participate in a pilot test of an online survey to help understand the attitudes and beliefs African American men and women 50 to 65 years old have about sexual activity and condom use. As a participant in this online survey you would have an opportunity to improve our understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. Furthermore, your participation will help a graduate student complete her dissertation research.

We are looking for African American men and women:

- 50 to 65 years old
- who live in the Washington, DC metropolitan area.

Participation in our pilot test consists of completing the online survey and a brief questionnaire. This pilot study should take no more than 60 minutes. If you are interested in participating in our pilot study please contact us.

Your participation is greatly appreciated!

--

Ina A. Ramos
301-860-4306
ijones2@umd.edu

Dr. Sharon Desmond
301-405-2526
desmond@umd.edu

APPENDIX K

Interview Invitation Email Script

February 2012

Dear _____:

Thank you for your interest in participating in a follow up interview for my dissertation research on sexual activity and condom use in older African Americans. Now that the survey data has been collected, we feel it is important to directly speak with participants to help us better understand some of the responses given on the survey. The ultimate goal of the study is to improve our understanding of ways to assist older men and women in overcoming risks and barriers to HIV prevention. This information can ultimately lead to intervention programs that will help reduce the number of new HIV cases in African Americans 50 to 65 years of age.

If you decide to participate in the interview, it will take no more than 30 minutes. Your answers to the questions will only be reported in an aggregate format (only reporting combined results and never reporting individual results). If you are interested in participating in an interview and have any other questions, please feel free to contact us at ijones2@umd.edu or desmond@umd.edu

Your participation is greatly appreciated!

--

Ina A. Ramos
301-860-4306
ijones2@umd.edu

Dr. Sharon Desmond
301-405-2526
desmond@umd.edu

Glossary

1. AIDS : a disease of the human immune system that is characterized cytologically especially by a reduction in the numbers of CD4-bearing helper T cells to 20 percent or less of normal thereby rendering the subject highly vulnerable to life-threatening conditions (as *Pneumocystis carinii* pneumonia) and to some that become life threatening (as Kaposi's sarcoma) and that is caused by infection with HIV commonly transmitted in infected blood especially during illicit intravenous drug use and in bodily secretions (as semen) during sexual intercourse—called also acquired immune deficiency syndrome, acquired immunodeficiency syndrome (Merriam-Webster)
2. Attitude – the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question (Ajzen, 1991, pg. 188)
3. Behavioral intention – function of both attitudes toward a behavior and subjective norms toward that behavior, which has been found to predict actual behavior (Fishbein & Ajzen, 1975)
4. Condom –
 - ii. : a sheath commonly of rubber worn over the penis (as to prevent conception or venereal infection during coitus)
 - iii. : a device that is designed to be inserted into the vagina before coitus and that resembles in form and function the condom used by males (Merriam-Webster)
5. Condom use – the use of a condom during sexual intercourse to include vaginal, anal or oral sexual intercourse

6. Condom use self-efficacy – the belief that one is both capable of and likely to use condoms in sexual situations (Farmer & Meston, 2006).
7. Down low or DL - often used to describe the behavior of men who have sex with other men as well as women and who do not identify as gay or bisexual. These men may refer to themselves as being “on the down low,” “on the DL,” or “on the low.” The term has most often been associated with African American men (CDC, 2006).
8. Heterosexual
 - i. :of, relating to, or characterized by a tendency to direct sexual desire toward the opposite sex
 - ii. : of, relating to, or involving sexual intercourse between individuals of opposite sex (Merriam-Webster)
9. HIV : any of several retroviruses and especially HIV-1 that infect and destroy helper T cells of the immune system causing the marked reduction in their numbers that is diagnostic of AIDS—called also AIDS virus, human immunodeficiency virus (Merriam-Webster)
10. Mixed methods research – research that involves collecting and analyzing both quantitative and qualitative data.
11. Older adult – a person who is 50 to 65 years of age.
12. Perceived barriers – a person’s *estimation* of the level of challenge of social, personal, environmental, and economic obstacles to a specified behavior or their desired goal status on that behavior.” (Glasgow, n.d., pg. 1)
13. Perceived behavioral control – refers to a persons’ perception of the ease or difficulty of performing the behavior of interest (Ajzen, 1991, pg. 183).

14. Qualitative research – empirical research in which the researcher explores relationships using textual, rather than quantitative data. Case study, observation, and ethnography are considered forms of qualitative research. Results are not usually considered generalizable, but are often transferable. (Barnes et al., 2006)
15. Quantitative research – empirical research in which the researcher explores relationships using numeric data. Survey is generally considered a form of quantitative research. Results can often be generalized, though this is not always the case. (Barnes et al., 2006)
16. Self-efficacy – confidence in one’s ability to exhibit the motivation and capability to achieve a given goal (Bandura, 1986).
17. Sexual activity - sexual behaviors including receiving oral sex, giving oral sex, vaginal intercourse and insertive/receptive anal intercourse (Schick, et al., 2010).
18. Sexual intercourse
 - i. :heterosexual intercourse involving penetration of the vagina by the penis : COITUS
 - ii. :intercourse (as anal or oral intercourse) that does not involve penetration of the vagina by the penis (Merriam-Webster)
19. Sexually Transmitted Disease
 - i. : any of various diseases or infections that can be transmitted by direct sexual contact including some (as syphilis, gonorrhea, chlamydia, and genital herpes) chiefly spread by sexual means and others (as hepatitis B and AIDS) often contracted by nonsexual means—called also STD (Merriam-Webster)

- ii. : may also be referred to as a sexually transmitted infection or STI
(womenshealth.gov)

20. Sexual transmitted infection

- i. : an infection passed from person to person through intimate sexual contact –
called also STI. (womenshealth.gov)
- ii. : are also called sexually transmitted diseases or STDs

21. Subjective norm – the perceived social pressure to perform or not to perform a
behavior (Ajzen, 1991, pg. 188)

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