EXPLORING RISKY SEXUAL BEHAVIORS OF SOUTHERN AFRICAN AMERICAN MEN AND THEIR READINESS FOR BARBERSHOP-BASED HIV PREVENTION PROGRAMS

by

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ABSTRACT

African Americans are disproportionately affected by HIV, and males make up most of the cases by gender. Innovative methods for addressing the gap in the HIV epidemic are needed. Barbershops have been identified as one locale to address health disparities among African American males. Few studies have used barbershops as sites to provide HIV prevention information. Though barbershops have been sites for a few urban-based HIV prevention programs for African American men, none have been inclusive of rural men and only one was conducted in the southern United States. The purpose of this study was to explore the risky sexual behaviors of African American men in Alabama, and assess their readiness for a barbershop-based HIV prevention program.

The study was guided by the Theory of Planned Behavior. A paper-and-pencil survey was administered to adult African American males at three barbershops in Alabama. The results of this study suggested that over half the men in the study did not consistently use condoms in the preceding three months. About one-fourth of the men reported having multiple sexual partners, and over half of all sexually active men used drugs and/or alcohol during a sexual encounter in the last three months. Attitudes were a significant predictor of having multiple sexual partners. Overall, the men were moderately ready for a barbershop-based HIV prevention program. Neither engagement in risky sexual behaviors nor the antecedents to engagement in risky sexual behaviors were predictive of readiness for barbershop-based HIV prevention programs.

The findings of the study provide valuable insight to stakeholders who are interested in reducing the spread of HIV among African American men. Improving attitudes toward condoms in the barbershop setting may lead to less frequent engagement in risky sexual behaviors, which could curb the HIV acquisition rate among African American males.

DEDICATION

This dissertation is dedicated to my loving parents and grandparents. None of this would be possible without you.

LIST OF ABBREVIATIONS

CDC	Centers for Disease Control and Prevention
USDHHS	United States Department of Health and Human Services
STI	Sexually Transmitted Infections
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
MSM	Men Who Have Sex with Men
MSMW	Men Who Have Sex with Men and Women

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Background

Human Immunodeficiency Virus (HIV) affects approximately 1.2 million Americans (CDC, 2015a). It is estimated that one in eight people who have the disease are unaware of their seropositive status (CDC, 2015a). An objective of Healthy People 2020 is to decrease the rate of transmission of HIV among adolescents and adults (USDHHS, 2015). African Americans are disproportionately affected by HIV and other sexually transmitted infections (CDC, 2015b). While African Americans comprise only 13% of the United States population, they account for 44% of new cases of HIV each year (CDC, 2014). The burden of the disease lies almost solely on the men of the race. African American males are twice as likely to be diagnosed with HIV compared to their white counterparts (CDC, 2015a). The Centers for Disease Control and Prevention (CDC) predicts one in sixteen African American males will become infected by HIV in their lifetime (CDC, 2014).

Men who have sex with men (MSM) comprise 72 percent of all new cases of HIV among African American men, with male to male transmission being the leading mode of transmission of the virus (CDC, 2015b). Heterosexual contact is the second most common route of transmission of the virus, followed by intravenous (IV) drug use among African American men. Despite heterosexual transmission being the second leading route of transmission for HIV, most interventions target MSM and IV drug users, resulting in an underrepresentation of primary

prevention efforts to reduce the proliferation of the infection in heterosexual African American males (Bowleg & Raj, 2012; Raj & Bowleg, 2012; Wohl et al., 2002).

Regionally, HIV transmission rates are increasing in the southern region while HIV infection rates in other parts of the United States are beginning to plateau (Reif, Geonnotti, & Whetten, 2006). In the State of Alabama, African Americans are 7.3 times more likely to become infected with HIV when compared with individuals of other races (Alabama Department of Public Health, 2015a) (Table 1.1). Consistent with national trends, African American MSM are most likely to be diagnosed with HIV, followed by heterosexual contact in the State of Alabama (Alabama Department of Public Health, 2015a). Age also appears to be a factor in the acquisition of the virus. The highest risk group for HIV infection by age and irrespective of race is the 20 to 29 year old age range (Alabama Department of Public Health, 2015b) (Table 1.2). This underlines the fact that young adults and adolescents should be the target of HIV prevention interventions.

Table 1.1. New Cases of HIV in Alabama by Racial Group

Newly Diagnosed	Finalized 2013	Preliminary 2014	Prevalent Cases
Black	457	466	8138
White	156	148	3540
Hispanic	15	18	324
Multi-Race	17	18	428
Other/Unknown	5	1	164
Total	650	651	12594

Source: Alabama Department of Public Health "Demographics of HIV Infections Among Individuals Residing in Alabama at Diagnosis."

Table 1.2. New Cases of HIV in Alabama by Age Group

Age	Finalized 2013	Preliminary 2014
≤ 19	44	40
20-29	253	309
30-39	138	121
40-49	103	93
≥ 50	112	88
Total	650	651

Source: Alabama Department of Public Health "Demographics of HIV Infections Among Individuals Residing in Alabama at Diagnosis."

Risky Sexual Behaviors. Several factors are believed to contribute to the acquisition of HIV in various groups. The factors that place one at an increased risk for the contraction of the virus are referred to as risky sexual behaviors. Risky sexual behaviors can range from not using or inconsistently using condoms to consuming drugs or alcohol before engaging in sexual intercourse. Having multiple sexual partners has also been identified as a sexual risky behavior. In a logistic model to assess factors that influence HIV acquisition, educational attainment, number of lifetime sexual partners, a history of crack cocaine use, and having a sexual partner who was an injection drug user or smoked crack were all significant factors (Adimora, et al., 2006).

As it relates to men, the target of this study, there may be a difference in riskiness of sexual behavior between heterosexual men and MSM. In a study to examine the covariates that influence risky sexual behaviors among male students attending Historically Black Colleges and Universities (HBCU's), MSM were eighty percent more likely than men who had sex with women only to inconsistently use condoms, to have reported multiple sexual partners within the previous three months, and to have a history of STIs (Browne, Clubb, Wang, & Wagner, 2009).

Condom Use. Having sex with men has long been identified as a factor that increases the likelihood of contracting HIV and other STIs. At the root of the epidemic, HIV and Acquired Immune Deficiency Syndrome (AIDS) were identified as homosexual men's diseases, with AIDS initially being referred to as Gay-Related Immune Deficiency Syndrome (GRIDS). It is suggested that heterosexual-identifying men may be having sex with males and transmitting the virus to their female sexual partners who are unaware of the male-male interactions. This is referred to as being on the down-low (Bond et al., 2009). Incarceration also has been identified as a risk factor for the transmission of the virus from one male to another male (Adimora, Schoenbach, & Floris-Moore, 2009). Again, African American males are disproportionately incarcerated when compared to members of other races (Adimora, Schoenbach, & Doherty 2006; Adimora et al., 2006).

Alcohol and drug use has been identified as a factor that can increase the likelihood of engaging in risky sexual behavior. Specifically, alcohol has been identified as a reason why condoms were not used in various sexual acts (Wang, Matthew, Chiu, Yan, & Bellamy, 2007; Wingwood & DiClemente, 1998). Drinking or using drugs before sexual intercourse increased the likelihood of engaging in risky sexual behaviors in a sample of HBCU MSM and men who had sex with men (Browne, Clubb, Wang, & Wagner, 2009). In a sample of rural African American men, binge drinking was associated with an increased likelihood of unprotected sexual intercourse (Kogan et al., 2010). Even for those who may have already contracted the virus, in cases where there were serodiscordant couples (one partner had HIV and the other did not), alcohol consumption before sexual intercourse decreased the likelihood of the disclosure of HIV seropositive statuses and discussions about using condoms (Sullivan, 2009a; Sullivan, 2009b).

Condom Use in African American Males. Condoms have been quite effective at reducing the spread of HIV. In a synthesis of the efficacy of condoms in published literature, it was determined that condoms were roughly 80% effective at preventing the spread of HIV (Weller & Davis-Beaty, 2007). Similarly, condoms seemed to be partially, but mostly, protective against other sexually transmitted infections (Holmes, Levine, & Weaver, 2004). The studies illustrated that while condoms are not fully protective, they were more effective than not using the contraceptive. With the knowledge about the effectiveness of condoms, the usage of the contraceptives was still inconsistent.

It has been suggested that the sexual debut for some African American males can occur as early as age nine (Kennedy et al., 2007). Of greater concern is the risk some of the young men place themselves by not using or inconsistently using condoms. In a sample of rural African Americans in Georgia, less than half (46.2%) of the participants in the study reported consistently using condoms with their sexual partners in the past three months, while over a quarter (27.4%) reported inconsistently or never using condoms in the past three months. Similar figures were found in a clinic-based study of young African American men with 30% of the sample reporting consistent condom use (Crosby, DiClemente, Yarber, Snow, &Troutman, 2008). In an analysis of condom use behaviors among HBCU MSM and men who have sex with men and women (MSMW), the MSMW were more likely than MSM to not use condoms with a sexual partner (Washington, Wang, Browne, 2008). Even among those who use them, condom use errors still persist. In a study of condom use errors and problems among high-risk males living in three large southern cities, 24% of the sample (N = 475) reported errors including condom slippage, placing the condom on backwards, and re-using condoms (Crosby, Milhausen,

Sanders, Graham, & Yarber, 2014). In a similar study, condom use errors increased with the number of sexual partners (Crosby, DiClemente, Yarber, Snow, & Troutman, 2008).

Societal Factors. Other societal factors play a role in the HIV epidemic among African American males. A number of factors have been identified including poverty, racism, incarceration, and lack of male partner availability for women (Adimora, Schoenbach, & Doherty, 2007; Adimora, Schoenbach, & Floris-Moore, 2009; Bowleg, Mingo, & Massie, 2013). These factors are believed to inadvertently lead to an imbalance in males to females and increase the likelihood of partner concurrency and other risky sexual behaviors (Adimora, Schoenbach, & Doherty, 2006; Adimora, Schoenbach, & Floris-Moore, 2009; Adimora et al., 2006). Social and structural issues are integral components to consider when designing a successful program for African Americans (Johnson et al., 2009).

Purpose of Study

The purpose of this study was to examine risky sexual behaviors among southern African American men and to assess their readiness for a barbershop-based HIV prevention program. The study aims to paint a clearer picture of the behaviors that put young African American men at risk for contracting HIV or STI. Current epidemiological data illustrates some of the risk behaviors that have facilitated the HIV epidemic, but the proposed study will illustrate the percentage of this segment of the population most at risk for contracting HIV or another STI.

Intervention is key in reducing the spread of sexually transmitted infections. A potential locale to tackle the issue of HIV prevention may be in a nontraditional setting, the barbershop. Barbershops have been dubbed “the black man’s country club,” (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013) and have been identified as appropriate venues for the dissemination of health information (Luque, Ross, & Gwede, 2014). While there have been

several programs spanning a variety of health topics hosted in barbershops, few have tackled the topics of HIV and other sexually transmitted infections (STI's) (Linnan, D'Angelo & Harrington, 2014). Linnan, D'Angelo, and Harrington (2014) were able to identify three barbershop-based HIV/STI programs in a literature synthesis of health promotion programs in various stages in salons and barbershops. A closer examination revealed two of the studies were in formative stages (Baker et al., 2012; Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013), while the remaining study offered details on the rapport-building process with barbers and their clientele, offering little detail on the conceptualization or implementation of the program (Lewis, Shain, Quinn, Turner & Moore, 2002). After the publication of the literature synthesis, Taylor et al. (2014) published formative data on the feasibility data collected for a proposed barbershop-based HIV risk reduction program in Brooklyn, NY. This was supplemented by a follow-up publication on the implementation and evaluation of a tailored, culturally relevant program for the priority population (Wilson et al., 2014).

Significance

The common thread that weaves all of the barbershop-based publications together is that they were implemented in urban centers with only one being implemented in the southern region (Lewis, Shain, Quinn, Turner & Moore, 2002). This study aims to contribute to the barbershop-based HIV prevention literature by exploring the readiness of southern African American men to participate in a barbershop-based HIV prevention program and by gauging the types of risky sexual behaviors the men engage in to make a relevant program. This study is the first of its kind to be inclusive of rural men, and it is the first to explore how engagement in risky sexual behaviors and the antecedents to the behaviors influence readiness for a barbershop-based HIV prevention program. The study findings will inform whether the development of a culturally

appropriate program would be of interest to African American men in Alabama. If development is favorable, the program would help to address the Healthy People 2020 objectives to reduce the number of new diagnoses of HIV in the United States (USDHHS, 2015).

Research Questions

This study investigated the following research questions:

1. What is the prevalence of risky sexual behaviors (i.e., nonuse of condoms, having multiple sexual partners, drug/alcohol use) among a sample of African American men in Alabama and the difference between subgroups?
2. Do HIV/AIDS knowledge, attitudes, perceived behavioral control, subjective norms, and intention to use condoms predict risky sexual behaviors in southern African American men?
3. What is the level of readiness among southern African American men for barbershop-based HIV risk reduction programs?
4. Do HIV/AIDS knowledge, attitudes, perceived behavioral control, subjective norms, intention to use condoms, and risky sexual behaviors predict readiness for barbershop-based HIV risk reduction programs among southern African American men?

Study Design

This study employed a cross-sectional research design. The study was conducted in barbershops located in one predominantly urban county, Tuscaloosa, and one predominantly rural county, Dallas, in the State of Alabama. A paper-and-pencil survey was administered to assess the participants' sexual behaviors, attitudes about sexual acts, intentions to use condoms and HIV knowledge. To be eligible to participate in this study, the participants had to be 1) male, 2) African American, 3) a resident of Alabama, and 4) aged 18 or older.

Delimitations

Delimitations place parameters around a study design (Simon, 2011). This study aimed to explore the risky sexual behaviors of southern African American men and to assess their readiness for a barbershop-based HIV risk-reduction program. To narrow the scope of the study, "southern" referred to residents of Tuscaloosa and Dallas counties, an urban and rural county in the State of Alabama, respectively. The sample was limited to a specific sex and one race, African American. The age range of interest for the study was 18 and older.

Limitations

The proposed study had several limitations. The first was that the survey design relied solely upon self-report, and there may have been some recall bias in participants' responses. Additionally, the target population was not representative of all African American men, so the results cannot be generalizable to other regions of the country. Survey completion was not in a controlled environment, so the results may not reflect the participants' current sexual health knowledge, beliefs, and practices. Additionally, the study was cross-sectional in design, so inferences about causality about sexual behaviors, attitudes, and intentions to use condoms cannot be made. The study measured responses at a single point in time.

The barbershop was identified as a site of interest for the health promotion, specifically the promotion of sexual health. This site was identified as a primary gathering location for the African American men (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). Feasibility studies have been conducted in these sites (Baker et al., 2012; Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013; Taylor et al., 2014), but none of these feasibility studies were located in the southern region of the United States. Furthermore, none of the feasibility studies focused partially or exclusively on rural African American men. A southern

focused study could elicit differing feedback from another regional site, and rural men may have differed in value and beliefs systems compared to urban men.

Assumptions

A few assumptions were made when interpreting the data. It was assumed that the participants in this study had the mental capacity to respond to the survey items accurately and without bias. It was also assumed that the responses were not influenced by external factors such as social desirability. The theory utilized in this study is robust in predicting a variety of health-related behaviors. It was assumed that the Theory of Planned Behavior (Ajzen, 1991), which posits that attitudes, subjective norms, and perceived behavioral control determine intentions to perform a behavior, was an accurate tool to assess risky sexual behaviors and the participants' readiness to participate in a risk reduction program in barbershops.

Key Terms

- *Casual Partner* – A secondary or other sexual partner.
- *Concurrency* – An overlap in the conclusion of one sexual relationship and the initiation of a new sexual relationship.
- *Human Immunodeficiency Virus (HIV)* – An infectious and chronic infection which can be transmitted sexually, intravenously, or via blood transfusions. The infection is most notable for reducing the immune response, increasing the susceptibility of those infected to acquire other infections.
- *Main Partner* – A regular, steady, or primary sexual partner.

- *Men Who Have Sex With Men (MSM)* – Men who engage in sex acts with other men. These men can identify as any sexual orientation, including homosexual, bisexual, heterosexual, or transsexual, among other reported sexual identification classifications.
- *Men Who Have Sex With Men and Women (MSMW)* – Men who engage in sex acts with men and women
- *Sexually Transmitted Infection (STI)* – Any infection that can transferred from person to person via vaginal, oral, or anal sexual intercourse.
- *Risky Sexual Behaviors* – Nonuse of condoms, having multiple sexual partners, and drug/alcohol use.
- *Theory of Planned Behavior (TPB)* – A theory which posits that a person's attitudes, subjective norms, and perceived behavioral control influence one's intentions to perform a specific behavior.
- TPB - *Attitudes toward the Behavior*- one's behavioral beliefs about performing a behavior and their evaluation of the outcomes of engaging in the behavior.
- TPB - *Subjective Norms* - individuals close to the referent individual who impact the referent individual's decisions to engage in certain behaviors.
- TPB - *Perceived Behavioral Control* - one's perception of how much volitional control they have over performing a specific behavior.
- TPB - *Behavioral Intentions* - the intermediate construct between attitudes, subjective norms, and perceived behavioral control, which acts as an antecedent to the execution of a behavior.

Summary

Epidemiological data is available to describe the HIV epidemic on the national, state, and local levels. The data suggests how the infection was acquired among those with it, but little

information is available about the behaviors of those without the disease. To reduce the amount of new HIV infections, more information is needed about the risky sexual behaviors of those without the disease. In an attempt to meet the people where they are, the barbershop was identified as potential location to learn more about African American males and some of the issues they tackle on a daily basis. In an effort to explore the feasibility of a barbershop-based HIV risk reduction program, risky sexual behaviors was assessed in this setting along with information to assess the participants' readiness or openness for such a program data will be collected from the participants via anonymous surveys.

CHAPTER II

REVIEW OF THE LITERATURE

HIV/AIDS in African American Men

Human Immunodeficiency Virus (HIV), the prerequisite for a diagnosis of Acquired Immunodeficiency Syndrome (AIDS), is an infection that is spread from person to person primarily through sexual contact, but can also be spread by intravenous drug use, blood transfusions, and mother-to-child transmission in the United States (CDC, 2013). The disease is both infectious and chronic. The disease is infectious in the sense that it is a virus with some intimate form of human contact as the primary mode of transmission. The disease is chronic because people living with HIV have a weakened immune system and are more likely to succumb to complications from other more treatable infections such as influenza and pneumonia. People living with HIV are living longer, healthier lives due to biomedical advances in the development of effective antiretroviral treatments long after the discovery of the potentially fatal disease in the early 1980's. HIV affects about 1.2 million Americans and about an eighth of people with the virus are unaware of their status (CDC, 2015a). In 2010, men who have sex with men (MSM) made up sixty-three percent of new cases of HIV in the United States, and 72 percent of new cases among persons aged 13 to 24 (CDC, 2015b).

African Americans are disproportionately affected by HIV and other sexually transmitted infections (CDC, 2015c). While they comprise twelve percent of the United States population, they represent nearly half of all new cases of HIV (CDC, 2015a). African Americans contract HIV at a rate eight times their white counterparts (CDC, 2015a).

African American males are considered the most at risk group for HIV infection. The Centers for Disease Control and Prevention (CDC) estimates that one in sixteen African Americans will have HIV in their lifetime (CDC, 2013). African American males are twice as likely to be diagnosed with HIV (CDC, 2015a) with new infection rates estimated to be seven times that of white men, twice that of Latino men, and nearly three times that of African American women. (CDC, 2015c). Men who have sex with men (MSM) comprise 72 percent of all new cases of HIV among African American men (CDC, 2015c). Heterosexual contact is the second most common transmission method, followed by intravenous (IV) drug use among African American men (CDC, 2015a). However, most interventions target MSM and IV drug users.

Heterosexual African American men are virtually absent from HIV prevention and intervention literature, with greater emphasis on the race's MSM and heterosexual women (CDC, 2015c). Nevertheless, more needs to be done to prevent the transmission of HIV from heterosexual African American males to heterosexual African American females, who represented 29% of all new cases of HIV among African Americans in 2010 (CDC, 2015c).

Risky Sexual Behaviors

Risky sexual behaviors are acts which put individuals at increased odds of contracting an STI or HIV. The behaviors range from partaking in substances and alcohol before engaging in a sexual act to not using contraceptives while performing vaginal, oral, or anal sex acts (Bird, Fingerhut, & McKirnan, 2011; Wohl et al., 2002). More specifically, risky sexual behaviors could include, but are not limited to, inconsistent condom use, oral sex with men, and anal sex with men or women (Wohl et al., 2002). Some risky sexual behaviors are more common in certain groups than others. For instance, MSM are more likely to engage in anal sex, as they are

limited to only two forms of sex, oral and anal sex. Anal sex within itself is a risky sexual behavior, increasing one's likelihood of exposure to an STI or HIV. The risk of contracting an infection can be further increased by not using contraceptives when engaging in the act. MSM are considered to be the primary transmitters of the virus in the African American community (Bond et al., 2009).

Heterosexual contact is the second leading cause of HIV transmission (CDC, 2015a). Seventy percent of women report contracting the virus heterosexually. However, men do not report similar statistics with new diagnoses of HIV. Sexual contact with a man can be interpreted as the leading mode of transmission among men, and in general (CDC, 2015a). The underlying issue is that some men identify as heterosexual, but report sexual contact with other men, identified as men who have sex with men and women (MSMW). In the African American community, these men have been labeled as being on the "down low" if both sexual preferences are not openly disclosed, and these men are believed to exacerbate the rising trends in the heterosexual realm by not disclosing their risky sexual behaviors with their heterosexual female partners. Nonetheless, disclosure of sexual orientation and HIV status have been identified as measures to prevent the spread of the virus (CDC, 2003). Oftentimes ignored in the HIV prevention literature, HIV serostatus disclosure can ameliorate the burden of the HIV epidemic on the African American community if partners communicated about their sexual statuses and preferences, among other topics, prior to engaging in sexual intercourse. Unfortunately, African Americans were less likely to disclose their HIV-positive serostatus to their sexual partners when compared to whites (Bird, Fingerhut, and McKirnan, 2011).

Heterosexual-identifying MSM or "down low" men underrepresented in the literature, specifically prevention literature. Since these men do not identify as homosexual or bisexual, this

group may be missed in interventions targeting all other groups. The information meant for heterosexual-identifying MSM has been difficult to get to this group since the heterosexual identity causes these men to be dismissive of information that mentions homosexual identity (Icard, 2008). In a study designed specifically for down low men, unique recruitment methods were employed to gather participants from this group. Men were recruited on the grounds where they searched for potential sexual partners at various times of day and night (Icard, 2008). Primary recruiters had to dress and play the role of the types of men that the down low men would want to hook up with, and, from there, secondary recruiters were utilized of those who approached the primary recruiters to share information about the study with potential participants (Icard, 2008).

In a study to assess whether down low identity was associated with greater sexual risk behavior with male or female partners among African American MSM, down low identity was not associated with engaging in greater risky sexual behaviors with partners of either sex (Bond et al., 2009). Although the down low men were more likely to have female sexual partners, their sexual risk practices did not differ significantly from other sexual identifying groups (Bond et al., 2009). Half of the down low men reported no recent sexual contact with a female sexual partner, while 23% of non-down low men reported recent sexual contact with a female. The study's results challenged the beliefs that down-low men identified as heterosexual when, in this study, they were more likely to identify as bisexual or homosexual (Bond et al., 2009). The down low men in this study were also less likely to report less receptive unprotected anal sex when compared to men who identified as non-down low (Bond et al., 2009).

Young adults should be part of the discussion as well with the CDC reporting that 15-24 year olds comprise 26% of new cases of HIV (CDC, 2015d). Since no members of this age group

were alive when the HIV epidemic began in the early 1980's, previously heightened awareness of the infection and communication strategies to raise awareness about HIV and its modes of transmission may have missed this age group since they were not around see some of the more immediate effects of the virus before treatments became available. One factor which may influence the likelihood of people in this age group contracting the virus is the age at first sexual intercourse. In a sample of young African American men in Chicago, it was revealed that some of the participants, aged 18-24, reported their sexual debut as early as age nine, and nearly all (99%) of them had engaged in sexual intercourse by age seventeen. The problem was not that they had sexual intercourse at an early age, but that they had sexual intercourse and were not efficacious in their efforts to seek out the resources within their communities to minimize the risk of contracting an STI. Further exacerbating the problem was the fact that most of the young men continued to engage in intercourse with other partners, while only 65% and 60% sought out diagnostic testing for HIV and other STI's, respectively (Kennedy et al., 2007). In a study of young (aged 16-21) MSM's testing patterns in an urban setting, sexual debut was similar to Kennedy et al. (2007); however, the area of greatest concern in this study was that the young MSM reported having their first HIV test two years after their first intercourse (Leonard, Rajan, Gwadz, & Aregbesola, 2014). Increasing efficacy to use condoms and to seek out medical diagnostic testing and treatment must be encouraged at an early age (Leonard, Rajan, Gwadz, & Aregbesola, 2014).

In a study which focused exclusively on heterosexual African American men in Los Angeles, some heterosexually-identifying men reported sexual contact with other men, participating more in oral sex acts than anal sex acts (Wohl et al., 2002). Condom use was low for all sexual acts regardless of sexual partner in this study. Additionally, HIV status disclosure

was not covered in 40% of heterosexual scenarios. This study also indicated that age at first sexual intercourse may increase the risk behaviors of African males, by increasing the quantity of sexual partners and the likelihood of having unprotected sexual intercourse prior to adulthood.

Other factors also contribute to engaging in risky sexual behavior. Alcohol has been identified as a catalyst to participation in risky behaviors. Alcohol can lower inhibitions and interfere with the decision-making process (Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Fortenberry, 1995; Millstein & Moscicki, 1995; NIAAA, 2015). As it relates to condom use, alcohol has been found to be significantly and negatively related to condom use (Morrison, DiClemente, Wingwood, & Collins, 1998; Seth, Wingwood, DiClemente, & Robinson, 2011; Wang, Matthew, Chiu, Yan, & Bellamy, 2007; Wingwood & DiClemente, 1998), while other studies did not yield the same outcome (Graves & Hines, 1997; Jones, 2004; Wingwood & DiClemente, 1998). In a study with heterosexual African American men, binge drinking increased the odds of having HIV five times when compared to those who did not binge drink, and stimulant use increased the odds by seven times (Keen, Dyer, Whitehead, & Latimer, 2014). Power imbalance in relationships and alcohol consumption before a sexual act significantly influenced African American women's perceived difficulty to implement condom use with a male partner (Woolf-King & Maisto, 2015).

Relatively new in the literature, male circumcision has also been linked to a reduction in risk of HIV infection through vaginal intercourse (Gray et al., 2007). However, in the United States African American men are less likely to be circumcised than white men (Xu, Markowitz, Sternberg, & Aral, 2007). Clearer evidence should be presented on circumcision as a form of risk reduction for HIV and other STI's.

Among rural African Americans residing in Georgia, 46.2% of the participants in a study of risk and protective factors for unprotected intercourse reported using condoms consistently with their sexual partners over the preceding three months. Over a quarter of the participants reported never using condoms or inconsistently using condoms in the same timeframe (Kogan et al., 2010). The results were nearly congruent with the results of a clinic-based study of young African American men in which only 30% of the sample reported consistent condom use (Crosby, DiClemente, Yarber, Snow, & Troutman, 2008). In a study comparing condom use behaviors between HBCU MSM and MSMW, the MSM were more likely to use condoms with their sexual partners than the MSM (Washington, Wang, Browne, 2008).

Even with consistent condom use, there is the possibility of condom use errors. Errors including condom slippage, placing the condom on backwards, and re-using condoms were cited among a high-risk sample of African American men in three large southern cities (Crosby, Milhausen, Sanders, Graham, & Yarber, 2014). In a similar study, the likelihood of condom use errors increased as the number of sexual partners increased (Crosby, DiClemente, Yarber, Snow, & Troutman, 2008).These studies underscore the argument that even though condoms may be used during sexual intercourse, there is no guarantee that the condoms are being used correctly to minimize the likelihood of contracting HIV or another STI.

HIV/AIDS Knowledge

HIV knowledge has been measured in numerous studies (Bond et al., 2015; Garofalo et al., 2015; Geringer, Marks, Allen, & Armstrong, 1993; Mancosk, Rountree, Donovan, and Neighbors, 2006). Knowledge of the basic concepts of the transmission of the virus is believed to raise consciousness about the virus, and minimize the likelihood of the individuals participating in risky sexual behaviors (Coates, Richter, Caceres, 2008).

Evidence suggests that knowledge alone will not reduce heterosexual African American men's sexual HIV risk behaviors (Bond et al., 2015; Bowleg, Mingo, Massie, 2013). A key finding of an early study in an urban sample of African American men and women was that knowledge of risk reduction was not translated into behavior (Geringer, Marks, Allen, & Armstrong, 1993). Knowledge did not predict condom use (Geringer, Marks, Allen, & Armstrong, 1993). In a comparison of urban and rural African American men's sexual behavior, HIV knowledge, and attitudes towards condoms, rural men had higher HIV knowledge than urban men (Williams & Sallar, 2010). In a qualitative study, Bond et al. (2015) discovered that HIV knowledge was relatively low in heterosexual African American men, and that HIV testing was used as a form of HIV prevention among some men in the sample.

In a study to explore racial and ethnic differences in HIV knowledge among young MSM, it was discovered that African American MSM scored significantly less knowledgeable about HIV compared to their white peers (Garofalo et al., 2015). Knowledge scores were also higher for those with education beyond high school, and the higher HIV knowledge scores were predicted significantly fewer condom errors (Garofalo et al., 2015).

In a study assessing HIV knowledge and attitudes of males and females on an HBCU campus, most participants answered the majority of the HIV knowledge questions correctly (Mancosk, Rountree, Donovan, and Neighbors, 2006). Only half knew that a diagnosis of HIV was not equivalent to a diagnosis of AIDS. Of significance ($p = .025$), males were more likely to be knowledgeable of African American women's rates of HIV contraction than the women in the study (Mancosk, Rountree, Donovan, and Neighbors, 2006).

Attitudes Towards Condoms

It has been reiterated that an individual's attitude towards performing a behavior impacts, positively or negatively, whether an individual engages in that behavior (Ajzen, 1991). Risky sexual behaviors are no exception. The value an individual places on performing a specific behavior and the expected outcomes of performing the behavior greatly impact the execution of the behavior (Ajzen, 2002).

Attitudes towards condom use have been examined in several studies. In a sample of rural and urban African American men in Mississippi, there were statistically significant differences between the rural and urban men on their attitudes towards condoms (Williams & Sallar, 2010). The urban men were more likely to agree that condoms felt unnatural and agree that condoms were for homosexual men (Williams & Sallar, 2010). The urban men were also more likely to endorse condom use as a masculine, but against their religion (Williams & Sallar, 2010). It was noted in a study of high-risk heterosexual African American men newly diagnosed with an STI that attitudes would be important in the development of tailored interventions for this group (Charnigo, Crosby, & Troutman, 2010).

In a qualitative study of MSM, decreased pleasure was a cited as a reason why condoms were not used (Peterson, Bakeman, Blackshear, & Stokes, 2003). Other reasons why condoms were not used included embarrassment, cost of condoms, and lack of knowledge (Peterson, Bakeman, Blackshear, & Stokes, 2003). Alcohol use and lack of preparation for spur of the moment situations were contributors to the attitudinal statements (Peterson, Bakeman, Blackshear, & Stokes, 2003).

Condom Use Among African American Men

Condoms have been shown to be about 80% effective in preventing the transmission of HIV from one partner to the next (Weller & Davis-Beaty, 2007). Several studies have been developed to explore condom use among males in the United States, and a few have explored condom use attitudes, efficacy, intentions, and behaviors among African American males. Heterosexual African American men in four focus groups in Philadelphia reported various reasons why black men engage in risky sexual behavior, including lust, lack of sensation when using condoms, not possessing condoms at time of sexual intercourse, not habitually using condoms, or devaluing one's health (Bowleg, Mingo, and Massie, 2013). In a qualitative study which included lower-middle-income African American males, very few reported consistently using condoms (Bowleg, 2004), which was consistent with other studies where condom use with primary sexual partners was examined (Anderson et al., 1999). Surprisingly, some men in this study expressed lack of power in the decision to use condoms, incongruent with masculine ideology, which adapts internalized cultural norms around appropriate male behavior (Bowleg, 2006; Thompson, 2002).There have been several barriers to using condoms among young men including decreased pleasure, embarrassment about purchasing condoms, condom use as a sign of infidelity (Ferguson et al., 2006; Jemmott & Brown, 2003; Wingwood & DiClemente, 1998), and the association of the use of condoms with an HIV seropositive status (Kennedy et al., 2007).

The prevalence of condom use in African American males has varied in the literature. Some studies have reported greater condom use in African American males when compared to other racial groups (Pleck, Sonenstein, & Ku, 1993; Anderson, Wilson, Doll, Jones, & Baker, 1999), while others have discovered the opposite (Essien, Ross, Fernandez-Esquer, & Williams,

2005). Nevertheless, African American males remain overrepresented in the epidemiological data related to HIV and STI's (CDC, 2015c). Consistency in using condoms is crucial in the protection of individuals from HIV and other STI's; however, more crucial to the reduction in the prevalence of these infections is the minimization of condom-related errors while engaging in sexual intercourse (Crosby, Sanders, Yarber, Graham, and Dodge, 2002; Sanders et al., 2012).

In a study of adolescent African American males and females using the Theory of Planned Behavior (Ajzen, 1991), it was discovered that improving subjective norms would be effective in improving intentions to use condoms, although this finding was more pronounced in females than males (Wise, Goggin, Gerkovich, Metcalf, and Kennedy, 2006). Perceived behavioral control was found to impact all groups except sexually active girls, and attitudes were associated with condom intentions exclusively in sexually active youth. In a qualitative study of African American men's sexual risk-taking, when asked who should initiate condom use, the men often mentioned that it was the responsibility of the man to introduce condoms into a sexual scenario, followed by women in ranking, and lastly both partners in a heterosexual encounter (Corneill, Tademy, Reid, Belgrave, & Nasim, 2008).

Condom use has varied by the gender of the sexual partner of African American men. In a survey of sexually active males who attended Historically Black Colleges and Universities (HBCU's), men who had sex with men and women were 0.37 times less likely to always use condoms when compared to men who had sex with women exclusively (Washington, Wang, and Browne, 2008). In another sample of HBCU students, males were less likely to discuss safer sex with their friends or to believe that their friends would be disappointed in them for not engaging in safer sex practices when compared to the females in the sample, indicating the males valued their friends' opinions about participating in risky sexual behaviors less when compared with

females (Mancosk, Rountree, Donovan, and Neighbors, 2006). Males were more likely to indicate their friends did not care if they used condoms, while the females were more likely to have friends who inquired about condom use and who asked them to use condoms (Mancosk, Rountree, Donovan, and Neighbors, 2006).

Partner type may play a role in whether condoms are used during sexual encounters. In some studies, condom use was more likely to occur with new sexual partners (Gorbach & Holmes, 2003). Condom use was also more likely to occur with casual partners than with main partners (Gorbach & Holmes, 2003). In fact, there is a negative relationship between relationship length and consistent condom use with those with main partners being less likely to report condom use often citing increased trust as main reason for not using condoms (Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Hammer, Fisher, Fitzgerald, & Fisher, 1996; Umphrey & Sherblom, 2007). Monogamy appears to decrease the frequency of condom use (Hammer, Fisher, Fitzgerald, & Fisher, 1996).

Efficacy in using condoms has also been explored. The literature has varied, but in a study on the effects of alcohol, relationship power, and partner type on the perceived difficulty to use condoms among African American men and women, it was reported that as condom use self-efficacy increased, perceived difficulty to use condoms decreased (Woolf-King & Maisto, 2015).

Cost has long been a barrier to condom use. In a previous study where condoms were available for free, when a nominal fee of a maximum of twenty-five cents was charged per condom, there was a marked decrease in the participation in a statewide condom distribution program (Cohen, Scribner, Bedimo, and Farley, 1999). Since poverty has been identified as an underlying determinant in the participation in risky sexual behavior (Adimora et al., 2006), low-cost condom distribution programs in poverty-stricken communities may be a less effective

solution. The condoms, perhaps, would have to be free; however, as illustrated, increased access to condoms may not be the catchall solution to the HIV epidemic in predominantly African American communities.

Other Preventive Measures

There are quite a few HIV prevention options for heterosexual and homosexual partners. Abstinence is most often emphasized, however, consistent and correct condom use has been cited as the main preventive measure for those who need an alternative to abstinence (Warner et al., 2004; Weller & Davis-Beaty, 2007). New options are available for individuals who are at higher risk for contracting the virus. Pre-exposure prophylaxis (PrEP) is a daily antiretroviral medication approved in 2012 used to prevent the transmission of the virus from one sexual partner to the other when couples are serodiscordant, meaning one partner is infected with HIV, while the other is not (Thigpen et al., 2012). Another alternative is the use of rectal microbicides, a misnomer due to the fact that the microbicide can be introduced into the vaginal or anal cavities to prevent the spread of HIV and other STI's during sexual intercourse (Mantella et al., 2005). Rectal microbicides are intended for those at the highest risk for HIV transmission, which in, and of, itself could stigmatize those who ask for the treatment (Kubicek, Arauz-Cuadra, and Kipke, 2015; McGowan, 2011).

In a study examining young MSM of color's (Latino and African American) perceptions about PrEP and rectal microbicides, very few participants knew what PrEP was, and those that did know thought it was difficult to obtain due to their perceived need to prove how high risk they were (Kubicek, Arauz-Cuadra, and Kipke, 2015). Perceived fear of rejection from partners was cited as a reason why taking the once daily medication would not be desirable among young MSM (Kubicek, Arauz-Cuadra, and Kipke, 2015). The use of rectal microbicides seemed more

desirable in this group of MSM since the microbicide, which would be administered in the same manner as a lubricant before penetration, would not have to become part of the daily routine (Kubicek, Arauz-Cuadra, and Kipke, 2015). Either method was believed to be effective in conjunction with the use of condoms during sexual acts among this group.

The HIV epidemic is complicated in the African American community. While contraction of the virus happens on an individual level, several systems play a role in determining why the virus is more prevalent in the African American race (Adimora, et al., 2006). As mentioned previously, poverty appears to play a role in the acquisition of the virus (Adimora et al., 2006). The underlying factors influencing poverty and the increased transmission of HIV and other STI's in the African American community are posited to be an imbalance in the ratio of males to females, economic oppression, racial discrimination, and high incarceration rates of African American men (Adimora, Schoenbach, & Doherty, 2007; Bowleg, Mingo, & Massie, 2013). The disparity in the availability of men to women is believed to be attributed to the incarceration of African American men at higher rates than their white counterparts, drug addiction, or death (Adimora, Schoenbach, & Doherty, 2007). Due to limited partner availability, African American women will sometimes engage in an intimate relationship with a male sexual partner who may have undesirable traits such as drug use, history of incarceration, history of sex with other men, and patterns of concurrency with sexual partners which the results of a sex ratio imbalance in the African American community (Adimora, Schoenbach, & Floris-Moore, 2009; Bowleg, Mingo, & Massie, 2013). High incarceration rates of African American males has been linked to institutional and structural racism, where African Americans are penalized at harsher rates for similar crimes of white people (Adimora, Schoenbach, & Floris-Moore, 2009). High male mortality is also believed to contribute to the

gender inequality and is perceived by African American women to exacerbate the epidemic within the race, giving men more power in relationships especially among women with lower economic and educational attainment (Adimora, Schoenbach, & Doherty, 2006). A catalyst to the epidemic is the intraracial sexual relationships, which limit partner choice and availability in the community, and, ultimately, decreases the marriage rate within the race (Adimora, Schoenbach, & Doherty, 2006). These boundaries ultimately create a dense sexual network among African Americans.

Poverty is a contributor to the isolation of African Americans, which affects HIV infection rates (Adimora, Schoenbach, & Floris-Moore, 2009; Kreuger, Wood, Diehr & Maxwell, 1990). Poverty affects housing, health care access, and relationship structures (Adimora, Schoenbach, & Floris-Moore, 2009). The complexities of institutional racism affect housing segregation, school resegregation, and other factors, which limit the prosperity of African Americans and limit sexual networks and marital patterns (Guttentag & Secord, 1983; Massey & Denton, 1993).

Concurrency

Partner concurrency is a contributor to the rise in HIV and other STI's in the United States. Partner concurrency is best defined as an overlap in sexual relationships, meaning that one sexual relationship has started before the previous one has concluded (Frye et al., 2013) and the act begins as early as adolescence (Kelley, Borawski, Flocke, & Keen, 2003). This is in contrast to sequential relationships where sexual relationships happen in sequential order and don't overlap in time (Kelley, Borawski, Flocke, & Keen, 2003). In a study examining concurrent sexual partnerships among men in the United States, 11% of men reported being in concurrent sexual partnerships in the previous year (Adimora, Schoenbach, & Doherty, 2007).

Concurrency was associated with being single, African American or Hispanic, and incarcerated. Alcohol intoxication and drug use, being in uncommitted relationships with females, and having a history of intercourse with a man were also more likely to occur in men who reported concurrent relationships when compared with men who did not report concurrent relationships (Adimora, Schoenbach, & Doherty, 2007). African American men in the study were also more likely to report receiving treatment for an STI in the past when compared with their white and Hispanic counterparts. Concurrency was also higher among men who had first sexual intercourse at an earlier age (Adimora, Schoenbach, & Doherty, 2007). Contrary to these findings, rural African American men in monogamous relationships were more likely to report consistent condom use (Ricks, Geter, Crosby, & Brown, 2014). Concurrency, in this study, was inversely related to age (Ricks, Geter, Crosby, & Brown, 2014).

Consistent with Adimora and colleagues (2007), Kelley and colleagues (2003) discovered that concurrency was more likely to occur in African American adolescents when compared to their white peers. In their study, concurrency was associated with lower condom use and alcohol use before the sex act (Kelley, Borawski, Flocke, & Keen, 2003). Concurrency was also associated with lower contraceptive self-efficacy and increased STI reporting when compared to adolescents in single partner relationships (Kelley, Borawski, Flocke, & Keen, 2003).

Interpersonal Influences on Sexual Risk-Taking

In considering risky sexual behaviors among African American men, it is important to discuss the role that masculine ideology plays in the decision for the men to engage in risky sexual behaviors (Bowleg, 2004). For generations, the larger society has developed its own constructions of what it means to be male or female, masculine or feminine. The intersection of race and gender further complicates the societal agenda, not including other social constructions

such as social class, income, and education level, among various factors. For most, masculinity revolves around power, be economically, socially, politically, or sexually (Whitehead, 1997). For African American males, who have been discriminated against and oppressed for generations in practically all realms that would allow them to exert power, the need to express masculinity may be overcompensated in sexual conquests, the area that these men have internal control over (Wolfe, 2003). Sexual scripts, shared cultural and gender guides for sexual behavior, factor heavily into the risky sexual acts in which African American men engage (Bowleg et al., 2015; Frith & Kitzinger, 2001). Results of a recent meta-analysis of behavioral interventions to reduce HIV risk in African Americans indicated that interventions designed for African Americans must address social and structural issues beyond the individual level to be considered successful (Johnson et al., 2009). It is instilled in some men that to be masculine is to have as many sexual partners as possible, avoiding monogamy.

Several studies have indicated a perceived and actual imbalance in the genders in the African American community, favoring the men (Bowleg, Mingo, & Massie, 2013; Ferguson, Quinn, Eng, & Sandelowski, 2006; Fossett & Kiecolt, 1993; Lichter, LeClere, & McLaughlin, 1991). This is complicated by institutionalized racism in governmental policies, which have limited the amount of education black males could acquire, where they could live, where they could work, and ultimately how they spend the rest of their lives in the free world or in the prison system (Adimora, Schoenbach, & Floris-Moore, 2009). However, this imbalance gives power to the gender in short supply (Messner & Sampson, 1991; South & Lloyd, 1992). The imbalance has, to some degree, influenced the likelihood of desirable African American men being in concurrent relationships (Adimora, Schoenbach, & Doherty, 2006; Adimora et al., 2006; Bowleg, Mingo, & Massie, 2013). Concurrency is also part of the masculine ideology, where

men are encouraged to be promiscuous by having as many sexual conquests with as many partners as possible (Hall & Applewhite, 2013). Further, masculine ideology encourages male dominance over females and lack of communication of thoughts of feelings with others as it would be thought that the male would come off as "soft" and unmanly (Hall & Applewhite, 2013). In summary, the masculine ideology posits that men should not be feminine, men should not be fearful, men should be respected, and men should be risk-takers (Bowleg, 2004; Ku, Sonenstein, and Pleck, 1993). To adhere to the social constructions of masculinity when other components suffer, African American men often increase their risky sexual behaviors to illustrate their proficiency at being masculine to others. Expressions of masculinity are often seen via sexually promiscuous behavior, aggression, violence, and thrill seeking (Bowleg, 2004; Cones & White, 1999).

The established sexual relationships often become complicated. While some men report multiple sexual relationships, there is a difference in how these sexual acts occur depending on the partner type (Woolf-King and Maisto, 2015). Men with multiple partners often have a main partner and casual sexual partners. Nonuse of condoms has been reported more often in casual relationships where the sexual partner is not expected to play a long-term role in the male's life (Gorbach & Holmes, 2003). However, main partners are less likely, in some studies, to require contraceptives (Bowleg, Mingo, & Massie, 2013). Often, reasons for not using condoms with main partners are a deeper emotional connection with the sexual partner and the partner's perception of infidelity (Kennedy et al., 2007). In qualitative studies, African American males have reported interrogations by their main sexual partners when condoms were introduced into the sexual relationship after no condom use or inconsistent condom use (Bowleg, Mingo, & Massie, 2013). The sexual partners typically thought the male either was unfaithful or had

contracted an STI and avoided disclosing his status by introducing condoms (Gorbach & Holmes, 2003). Even after the introduction of condoms, some males reported ultimately not using them after being convinced by a partner (male, female, or other) that they were using some other contraceptive or they were not infected with any STI's (Bowleg, Mingo, & Massie, 2013). This data suggests that condom negotiation skills are lacking among some African American males.

Another reason African American men reported not using condoms or using them inconsistently was being "caught up in the moment" (Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Frye et al., 2012). The men reported not wanting to ruin the thrill of the moment by seeking out a condom or missing an opportunity to have sexual intercourse simply because they did not have a condom (Corneille, Tademy, Reid, Belgrave, & Nasim, 2008). The need to have a sexual conquest often trumped the need to protect oneself from potentially terminal sexually transmitted infections.

The Southern United States

Sexually transmitted infections in the predominately rural Deep South have increased in the past two decades while the trends have plateaued in other regions of the United States (Reif, Geonnotti, & Whetten, 2006). The HIV and AIDS epidemic is unevenly distributed by state and region in the United States. The epidemic is generally concentrated in urban areas, with states with more metropolitan areas reporting higher diagnosis rates than others (CDC, 2015e). Some of the generalities about the epidemic can be understood by region as well. In 2009, the rate of the people living with AIDS was highest in the Northeast, followed by the South, the West, and the Midwest although the estimated number of adults and adolescents living with AIDS was highest in the South. With the exception of the West, blacks accounted for the highest amount of

diagnoses in each region (CDC, 2015e). Understanding the places and populations that are most affected by HIV and AIDS allows the federal government to allocate its resources in such a way that they are matched to the geographic areas where they are needed most, while still supporting a basic level of HIV education and prevention for everyone across the country (CDC, 2015e).

In Alabama, trends for African Americans parallel national data. African Americans are 7.3 times more likely to become infected with HIV than members of other racial groups (Alabama Department of Public Health, 2015a). MSM comprise fifty-five percent of all newly diagnosed HIV infections (Alabama Department of Public Health, 2015b). Similarly, heterosexual contact is the second-leading mode of transmission of the virus (Alabama Department of Public Health, 2015b). The highest group for HIV infection is young African American males between the ages of 15 and 29 (Alabama Department of Public Health, 2015a). This group is 11.5 times more likely to become infected with HIV when compared with other Alabama residents. African American females are 7.4 times more likely to become infected with HIV when compared with women of other races (Alabama Department of Public Health, 2015a). The majority of new HIV diagnoses are in urban centers in the state to include, Jefferson, Madison, Mobile, Montgomery, and Tuscaloosa counties.

Funding affects STI and HIV prevention efforts in Alabama. Of the $94.6 million awarded by the CDC for STD prevention efforts, Alabama only received $1.7 million for its programs (Kaiser Family Foundation, 2015a). This value is about $400,000 more than its sister state Mississippi, but less than the funds allocated to the neighboring states of Florida, Georgia, and Tennessee. Alabama also receives funding from the CDC's HIV/AIDS Fund, Housing Opportunities for People with AIDS (HOPWA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Ryan White Program for a sum of about $38

million for various efforts related to prevent HIV/AIDS; however, the national sum tops $3 billion (Kaiser Family Foundation, 2015a). The state received none of the $5 million allocated for HIV/AIDS from the Office of Minority Health (Kaiser Family Foundation, 2015a), although over three-fourths of new diagnoses of HIV were in non-white persons in 2013 (Alabama Department of Public Health, 2015b).

As it relates to HIV testing, Medicaid will not cover HIV testing unless it is medically necessary (Kaiser Family Foundation, 2015b). Considering the alarming amount of African Americans who rely on Medicaid in the State of Alabama, this policy is flabbergasting. Alabama had about 2600 Medicaid enrollees in 2013 and spent $14,599 per enrollee, which was $12,000 below the national average for expenditures on Medicaid enrollees with the virus (Kaiser Family Foundation, 2015c).

Surprisingly, Alabamians have reported slightly higher percentages (44.9% vs. 43.7%) of citizens having ever been tested for HIV (Kaiser Family Foundation, 2015d). The State of Alabama does not mandate sex education in high schools, however, if it is taught, it must stress abstinence and cover contraception (Kaiser Family Foundation, 2015a). The state does mandate that HIV be covered with the same stipulations as sex education (Kaiser Family Foundation, 2015a). Three-fourths of Alabama students enrolled in 6^{th}, 7^{th} and 8^{th} grades in public schools received required instruction on HIV, STD, or pregnancy prevention (Kaiser Family Foundation, 2015a), while 64.1% received instruction on how to access valid and reliable health information, products, and services. 82.7% of high school students received the instruction, while 85.2% received information about the resources available related to the topics (Kaiser Family Foundation, 2015a). The state does not currently have a sterile syringe exchange program for intravenous drug users with Georgia being the only neighboring state to have such a program

(Kaiser Family Foundation, 2015a). The lack of a needle exchange program might not be justifiable since the state reported twenty-four of the 650 new diagnoses of HIV were among IV drug users in 2013 (Alabama Department of Public Health, 2015b).

Of the studies conducted in Alabama, one recorded the risk behaviors of HIV infected individuals living in nonurban areas, mainly all areas excluding the Birmingham Metropolitan Area (Beltrami et al., 1999). The results indicated that the acquisition of the virus was migrating from urban centers to nonurban areas. One-third of the participants in the study reported using alcohol prior to a sexual act and one-third also reported inconsistent condom use. Thirty-nine percent of the study's participants reported having no health insurance, and 16% reported having lost health insurance coverage since being diagnosed with the virus. Since this study was published, the Patient Protection and Affordable Care Act was implemented nationwide, hopefully, ameliorating the likelihood of those infected seeking and receiving treatment for the virus (Wagner, Yanyu, & Sood, 2014). The importance of this study was that it highlighted the significance in moving HIV prevention and treatment efforts outside of urban centers. While some of the participants in this study reported contraction of the virus in an urban center, more than half believed they contracted the virus in a nonurban setting (Beltrami, et al., 1999). Several factors acted as catalysts in the transmission of the virus, including drinking alcohol, using crack cocaine, injecting drugs, and inconsistent condom use.

Alabama ranked 17th in the nation for number of HIV diagnoses in 2011 (CDC, 2015f). Furthermore, the rate of primary and secondary syphilis cases were 9.6 per 100,000 in 2008 and 4.5 per 100,000 in 2012, ranking Alabama as 15th in the country. Forty-eight cases of congenital syphilis were reported from 2008 to 2012. Alabama ranked third in the nation for both chlamydia and gonorrhea infections in 2012 with women contracting the infection at 2.5 times that of men.

Between 2007 and 2011, the rates of acute hepatitis A decreased in Alabama by sixty percent, hepatitis B decreased by 11%, and hepatitis C increased by 150%. Consistent condom use has been identified as a method to reduce both gonorrhea and chlamydia as well (Warner et al., 2004).

The Barbershop

The black barbershop has been identified as "the black man's country club" (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). It is the gathering place of men desiring to obtain a haircut and exchange dialogue with fellow patrons and barbers about a plethora of topics. There has been an increased presence of barbershop-based health promotion programs covering a range of topics from physical activity to prostate cancer to hypertension. HIV and other STI's have received minimal visibility in these facilities. According to a recent literature review, only three barbershop HIV/STI studies have been published in peer-reviewed journals (Linnan, D'Angelo, & Harrington, 2014). Since the publication of this review, two additional studies were published. The five publications cover three programs.

In Philadelphia, a study was conducted with barbers and barbershop owners to gauge their readiness for an HIV/STI risk reduction program (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). A goal of the study was to gauge the participants' comfort with the sensitive topic being discussed in a barbershop setting and to gauge the barbers' comfort with delivering the health information. The study also gathered quantitative data about the barbers' knowledge about HIV and other STI's. Aligned with the same study in Philadelphia, Baker and colleagues (2012) explored the risky sexual behaviors of 18-24-year-old African American males and conducted focus groups with some of the participants to understand the factors that influence risky sexual behaviors in the population.

Lewis and colleagues (2002) provided best practices for building rapport with customers, barbers, and beauticians in a barbershop- and beauty salon-based risk reduction program. While Durham-based study's tips were helpful by providing best practices on how to engage community members and stakeholders, details about the specific program components were lacking. Detailed information on the pre-planning, planning, and implementation phases of the program was devoid in the publication. What is known about the program, Project Safetalk, is that barbers and beauticians were trained and served as peer educators, and provided condoms and educational materials to their clientele (Lewis, Shain, Quinn, Turner & Moore, 2002).

Shortly, after the literature synthesis was published (Linnan, D'Angelo, & Harrington, 2014), another barbershop-based study for African American males was published (Taylor et al., 2014). This study was based in New York City and had sixty 18-45-year-olds to complete Brief Risk Assessments and focus groups, similar to Baker and colleagues (2012) to understand the current risky sexual behaviors and perceptions of HIV risk of heterosexual men in hopes of designing a culturally appropriate and relevant program for this audience.

Wilson and colleagues (2014) followed up this study, designed to increase HIV awareness and build community capacity, by detailing the planning, implementation, and evaluation processes for this audience. This study was the first of its kind to detail the process of designing and evaluating a barbershop-based risk reduction program for African American males in Brooklyn. Two major limitations of the study were that it catered specifically to heterosexual men and the study was conducted in a major urban center, excluding rural audiences.

The Wilson et al. (2014) study was a pilot barbershop-based HIV prevention program called Barbershop Talk With Brothers (BTWB). To implement the program, thirty barbers at ten barbershops were trained to deliver HIV prevention messages and to refer clientele to enroll in

the program. The trainings consisted of providing the barbers with an overview of the program and participation in the program, and how to recruit patrons into the program. The barbers were incentivized with items such as T-shirts, buttons, money, and barber capes. They were also provided condoms to distribute in their shops.

Eligibility for the study was completed via an ACASI screening form. Patrons had to: 1) identify as heterosexual, 2) be 18-45 years old, 3) be HIV-negative, 4) have two or more female sexual partners in the past three months, 5) be English-speaking, 6) not be an injection drug user, 7) not a participant in a substance use study in the last six months, and 8) not participate in the formative phase of this study. Men who were eligible and consented to participate in the program were asked to complete a baseline assessment, participate in the program, and complete a 3-month follow-up assessment. The main outcome variable was unprotected sex (vaginal or anal) with a female partner in the last three months. Mediating variables included attitudes toward condoms, self-efficacy for condom use, community empowerment, and HIV stigma.

Guided by the Social Cognitive Theory (Bandura, 1986), the outcome and mediating variables were addressed via three modules in a single group session, which took less than two hours to deliver. The modules included skill-building activities with feedback and supporting handouts. The first module emphasized community responsibility and introduced HIV as a health problem to be addressed. The second module emphasized the local epidemiology of HIV and provided information about the virus. It is also raised awareness about the men's susceptibility to the virus, and provided tips to increase the men's efficacy to use condoms. The last module provided the men with techniques about how to effectively communicate information about HIV to the sexual partners and other community members. The results of the program were that the proportion of men who engage unprotected sex significantly decreased from baseline to follow-

up. Additionally, attitudes toward condom use, self-efficacy to use condoms, and perceptions of community empowerment increased significantly. HIV stigma did not change significantly, although there was improvement.

While all of these studies make a contribution to the explanation of risky sexual behaviors in specific regions and programs conducted within these populations, only one assessed the readiness of the intended audience to participate in a barbershop-based HIV/STI risk reduction program where the method was more qualitative than quantitative (Baker et al., 2012). Additionally, none of these studies appeared to include the voices of rural African Americans; only those in urban centers. The values and voices of geographically separated groups do not always align.

The aforementioned studies provide a framework for the present study of southern African American men's risky sexual behavior. While the present body of literature indicates that barbershop-based programs might be feasible for African American men, a focus needs to be shifted to the southern United States, where the HIV epidemic has been on the rise. An exploration of the feasibility of these types of programs should be conducted in the urban centers as well as rural areas to understand what these men are willing to discuss in barbershops in an effort to explore the efficaciousness of such programs in the region.

Theory

Kerlinger (1986) describes theory as "a set of interrelated constructs, definitions, and propositions that presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena." Babbie (1989) describes theory as "a systematic explanation for the observed facts and laws that relate to a particular aspect of life." McGuire (1983) defines theory as "knowledge writ large in the form of

generalized abstractions applicable to a wide range of experiences." Chafetz (1978) claims that a theory is "a set of relatively abstract and general statements which collectively purport to explain some aspect of the empirical world." Theory has also been described as "an abstract, symbolic representation of what is conceived to be reality – a set of abstract statements designed to 'fit' some portion of the real world. (Zimbardo, Ebbesen, & Maslach, 1977).

Silver (1983) describes theory as a unique way to perceive reality. Theories help to shape answers to *why, what,* and *how* questions. Theories start at the most concrete level of a concept to the mid-level of a construct to the most abstract level of a proposition. A concept varies in meaning, but helps us to distinguish between different events and sensations. Concepts allow for linkages between past events and present events. When clustered together, concepts form the basis for constructs. Constructs play specific roles in theories, and possess a precise definition in the context of the theory that it is assigned. Propositions articulate the relationships of several constructs. Propositions are logically related, and the relationships among propositions constitute a theory.The discipline of Health Education and Health Promotion has encouraged the use of theories that have already been established and that can be empirically tested (Glanz et al., 2008).

Theoretical Framework

A theoretical framework provides a researcher with a specific lens to view their data and interact with it (Anfara & Mertz, 2015). Some researchers use the methodology as a guide in choosing an appropriate theory to interact with their data, whether it be a case study, narrative inquiry, ethnography, or some other methodology (Anfara & Mertz, 2015). Other researchers take a "barely there" approach and try to use theory minimally to make inferences about the phenomena occurring within their data (Anfara & Mertz, 2015). Yet, another approach is to use theory to guide every aspect of the study from the conceptualization to the reporting of the

findings (Merriam, 2009). Anfara & Mertz (2015) also view theory as more comprehensive, and acknowledge that theoretical has no clear and consistent definition. They view theoretical frameworks as a way to "see" phenomena and comprehend what may be going on in the data. That's the position taken in this study.

The theoretical framework creates a foundation for the study, even if trying to go sans theory or use grounded theory (Merriam, 2009). Theory, whether qualitatively or quantitatively driven, provides the structure and guidance for studies to be carried out. It's difficult to go into a study blindly and gain valuable data without some form of instructions, typically in the form of a theoretical framework, to guide your every step (Anfara & Mertz, 2015).

The theory proposed for this study is the Theory of Planned Behavior (Ajzen, 1991), which is an extension of the Theory of Reasoned Action (Fishbein & Ajzen, 1975). The Theory of Reasoned Action posits that attitude and social referents, referred to as subjective norms, help to influence intentions to perform a particular behavior. Important for the performance of a certain behavior is volitional control, meaning that there is some conscious effort to perform the behavior (Ajzen, 1991). The Theory of Planned Behavior expands upon the Theory of Reason Action by adding an additional construct, perceived behavioral control, to increase the predictive power of an individual's intention to perform a behavior. It takes into account that the person performing the behavior has some control over their actions.

The Theory of Planned Behavior (TPB) is one of the most robust theories. As it relates to risky sexual behaviors, the TPB has been used in multiple studies to predict condom use (e.g. Asare, 2015; Davis et al., 2015; Jemmott et al., 2007; Protogerou, Flisher, Wild, & Aaro, 2013; Wise, Goggin, Gerkovich, Metcalf, & Kennedy, 2006). In a recent study of college students' condom use behaviors, attitudes, subjective norms, and perceived behavioral control

significantly predicted behavioral intentions (Asare, 2015). Behavioral intentions, in turn, significantly predicted condom use behavior (Asare, 2015).

Attitude is influenced by one's behavioral beliefs and their evaluation of the outcomes (Ajzen, 1991). The behavioral beliefs are those beliefs that an individual has about the outcomes of performing a particular behavior. Attitudes were shown to increase condom use among sexually experienced youth in one study (Wise, Goggin, Gerkovich, Metcalf, & Kennedy, 2006). In a qualitative study to assess heterosexual men's readiness for a barbershop-based HIV/STI program, the men reported favorable attitudes towards condoms, stating that sex would still be enjoyable with a condom (Baker et al., 2012).

Subjective norms are those behaviors that individuals believe people close to them expect them to perform and the individuals' willingness to comply with the referent individuals' expectations of them (Ajzen, 1991). In the qualitative needs assessment for a barbershop-based HIV/STI program, the men's sexual partners were their subjective norms and their responses indicated that their sexual partners would want them to use condoms and stay monogamous (Baker et al., 2012).

Perceived behavioral control is one's perception of how much control they have over performing a specific task (Ajzen, 1991). Perceived behavioral control determines how much volitional control a person perceives themselves to have person's perceived ability to perform a specific behavior. In a sample of African American adolescents, it was discovered that improving perceived behavioral control to use condoms would be effective in all groups except sexually experienced girls (Wise, Goggin, Gerkovich, Metcalf, & Kennedy, 2006).

Intention is the intermediate construct between attitude, subjective norms, and perceived behavioral control and the execution of the desired behavior (Ajzen, 1991). Intention was

significant predictor of condom use behavior in a sample of college students, accounting for 15% of variability in the participants' condom use behaviors (Asare, 2015). Attitude toward condoms, subjective norms, and perceived behavioral control significantly predicted 64% of the variance in intentions to use condoms.

Summary

The purpose of this study is to explore the sexual risky behaviors of African American men living in the southern United States and to inform researchers of how to best develop strategies to prevent sexually transmitted infections in this doubly health disparate group. The barbershop is to be an appropriate venue to capture the maximum amount of African American men in a single setting. It is believed that the aforementioned topics can be assessed in this study and inform researchers of the current sexual health status of southern African American men to develop culturally relevant and appropriate programs for them. The Theory of Planned Behavior will serve as a guide for developing the instrument and the interpretation of the data.

CHAPTER III

RESEARCH METHODS

The purpose of this dissertation was to examine risky sexual behaviors among southern African American men and to assess their readiness for barbershop-based Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) risk reduction programs. While HIV infection rates in other regions of the United States are beginning to plateau, HIV transmission rates are increasing in the southern United States (Reif, Geonnotti, & Whetten, 2006). In the State of Alabama, African Americans were 7.3 times more likely to become infected with HIV compared to residents of other races (Alabama Department of Public Health, 2015a). Consistent with national trends, African American men who have sex with men (MSM) were most likely to be diagnosed with HIV in Alabama, followed by heterosexual transmission, intravenous drug use transmission, and mother-to-child transmission. The highest risk group for HIV infection irrespective of race was the 15 to 29 year old age range (Alabama Department of Public Health, 2015b).

Barbershops have been dubbed “the black man’s country club,” and have been identified as appropriate venues for the dissemination of health information (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013; Luque, Ross, & Gwede, 2014). Linnan and colleagues (2014) identified three barbershop-based HIV/sexually transmitted infection (STI) programs in a literature synthesis of health promotion programs. These programs were in various stages in both barbershops and salons. A closer examination revealed two of the studies were in formative stages (Baker et al., 2012; Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). The

remaining study offered details on the rapport-building process with barbers and their clientele, providing little information about the conceptualization or implementation of the program (Lewis, Shain, Quinn, Turner & Moore, 2002). After the publication of the literature synthesis, Taylor et al. (2014) published formative data on the feasibility data collected for a proposed barbershop-based HIV risk reduction program in Brooklyn, NY. This was supplemented by a follow-up publication on the implementation and evaluation of a tailored, culturally relevant program for the priority population (Wilson et al., 2014).

The commonality between all of the barbershop-based publications was that they were implemented in urban centers with only one being implemented in the southern region (Lewis, Shain, Quinn, Turner & Moore, 2002). While the literature acknowledged the implementation of a barbershop-based program in Durham, North Carolina, the only publication related to the program focuses on community engagement and how to build rapport at the barbershops (Lewis, Shain, Quinn, Turner & Moore, 2002). This study aimed to contribute to the barbershop-based HIV prevention literature by conducting a needs assessment to investigate HIV/AIDS knowledge, attitudes, intentions and behaviors of African American men, as well as obtain information about the participants' readiness for a barbershop-based HIV/AIDS program.

Research Questions

The following research questions were used to guide this study:

1. What is the prevalence of risky sexual behaviors (i.e., nonuse of condoms, having multiple sexual partners, drug/alcohol use) among a sample of African American men in Alabama and the difference between subgroups?

2. Do HIV/AIDS knowledge, attitudes, perceived behavioral control, subjective norms, and intention to use condoms predict risky sexual behaviors in southern African American men?
3. What is the level of readiness among southern African American men for barbershop-based HIV risk reduction programs?
4. Do HIV/ AIDS knowledge, attitudes, perceived behavioral control, subjective norms, intention to use condoms, and risky sexual behaviors predict readiness for barbershop-based HIV risk reduction programs among southern African American men?

Research Design & Sample

The current study employed a cross-sectional research design, and was conducted in urban and rural barbershops located in Alabama. A one-time survey assessing previous sexual behaviors and current sexual behaviors, attitudes, intentions to use condoms and HIV/HIV knowledge was administered. To be eligible for this study, participants had to meet the following inclusion criteria: 1) self-identify as male, 2) self-identify as African American, 3) reside in Alabama, and 4) be aged 18 or older.

Recruitment & Participants

A convenience sample of African American male residents of Alabama aged 18 and older were recruited for participation in this study. The men were all patrons of barbershops with predominantly African American clientele. Barbershops were identified through the personal network of the principal investigator who could recommend barbershops with a large base of African American clientele. Barbershop owners were informed of the study via a hand-delivered recruitment letter and oral communication with the principal investigator, and were asked if they were willing to allow the principal investigator and research assistant to come into their shops to

recruit participants and administer the survey. The barbershop owners were asked what days were their busiest to attract the maximum amount of participants in the study in a minimal amount of days.

Two barbershops in Tuscaloosa County, and a barbershop in Dallas County were utilized for this study. Tuscaloosa County was chosen due to its classification as an urban county, while Dallas County was chosen due to the county's largely African American and rural population (Alabama Rural Health Association, 2013). All of the barbershop owners identified Fridays and Saturdays as their peak days, so recruitment and data collection for this study took place on those days. Participants who met the eligibility requirements and consented to participating in the study took part in this study.

Instrument/Procedure

A paper and pencil questionnaire was administered. Items assessed included HIV/AIDS knowledge, attitudes towards condoms, intentions to use condoms, self-efficacy to use condoms, drug use, sexual behaviors, and sociodemographic data. All questions were written at a ninth grade reading level or lower. Completion of the questionnaire took approximately 20 minutes.

HIV/AIDS knowledge was assessed using components of the 18-item HIV Knowledge Questionnaire (HIV-KQ-18). The questionnaire, a shortened version of the 45-item HIV Knowledge Questionnaire (HIV-KQ), was piloted and validated with a large (n=1,019) sample of low-income men and women (Carey, Morrison-Breedy, & Johnson, 1997; Carey & Schroder, 2002). The internal consistencies of the instrument ranged from .75 to .89 and the test reliability ranged from .76 to .89. All questions were intended to assess current HIV knowledge and were answered in the True/False/Don't Know format. The instrument, in its entirety, can be found in Appendix A.

Another instrument used in this study were components of the 38-item Sexual Risks Scale, developed and piloted in college students. The instrument drew from the Theory of Reasoned Action (Fishbein & Ajzen, 1975), the Theory of Trying (Bagozzi & Warshaw, 1990), the Information-Motivation-Behavioral Skills Model (Fisher et al., 1994), and the Health Belief Model (Becker, 1974). This instrument was used to determine the influences on intentions to practice safer sex and, ultimately, the performance of less risky sexual behaviors (DeHart & Birkimer, 1997). The instrument included six subscales (attitudes about safer sex, normative beliefs, intentions to try to practice safer sex, expectations about the feasibility of safer sex activity, perceived susceptibility to HIV/AIDS, and substance use). Each subscale ranged in reliability from .76 for substance use to .88 for attitudes. The final instrument had a reliability of .86. The Sexual Risks Scale can also be found in Appendix B.

To supplement the Sexual Risks Scale, the Intent to Condom Use Scale was used (Kanu & Kanu, 2000). This inventory was based upon the Theory of Planned Behavior, and had been used in predominantly African American students attending HBCU's. The instrument addressed the four constructs of the Theory of Planned Behavior: attitudes, subjective norms, intentions, and perceived behavioral control. The reliability coefficient was .90 for the original instrument. The instrument can be found in Appendix C.

The final instrument utilized for this study was the National College Health Assessment developed by the American College Health Association. This instrument was developed to assess the overall health and well-being of college students, ranging from physical activity and nutrition to mental health to alcohol use (ACHA, 2015). The section of the survey retained for this study included the items assessing sexual behaviors, which included items on condom use (Appendix D).

To assess the barbershop attendees' perceived readiness for a barbershop-based HIV risk reduction program, a series of items were developed by the principal investigator and modeled after the data available from a similar study conducted in Philadelphia (Baker et al., 2012). The items in the original instrument assessed the frequency of barbershop visits, time spent in the chair when receiving service at the barbershop, perceptions of the delivery of a health program in the barbershop, perceptions of barbers' abilities to deliver health information, and perceptions of the distribution of condoms in the barbershop. The latter three items were used to assess readiness in this study. A readiness score was created using the mean of the Likert-type responses of the readiness items. Demographic information was also collected via the questionnaire. Age, education level, income, marital status, sexual orientation, county of residence, and zip code was collected (See Appendix E).

The completed instrument incorporated the most relevant questions from each of the aforementioned instruments, and the drafted instrument was piloted in a small group of five community members who met the inclusion criteria for the study. Snowball sampling was used as a method to gather pilot participants. The men were recruited from two beauty salons in Tuscaloosa County and a local YMCA, also in Tuscaloosa County. The piloting phase assessed readability of the instrument, length of the survey, the estimated length of time to complete the survey, and the cultural relevance of the items on the survey.

Three barbershops located in Dallas County, Alabama and Tuscaloosa County, Alabama were accessed by the principal investigator and a research assistant on peak days as determined by the barbershop owners and barbers. The principal investigator and a trained African American male research assistant attended the selected barbershops on the highest traffic days for business as determined by the barbershop owners and barbers from the open of business until the close of

business on each day. On the days of data collection, the principal investigator and research assistant approached patrons of the barbershops to discuss the study and inclusion criteria regardless of perceived age. If the patrons were interested and met the inclusion criteria, consent was obtained from the prospective participant and the questionnaire was administered. Due to the sensitive nature of the topic at hand, a Waiver of Documentation was obtained from the University of Alabama's Institutional Review Board (IRB). Completion of the survey was considered consent by the participants. The questionnaire was completed in approximately 20 minutes. The participants had the option of having the questionnaire read aloud if requested. A copy of the survey questions can be found in Appendix E.

Protection of Information

Due to the open format of the intended recruitment and survey administration site, the barbershop, special efforts were made to protect the identities of the participants and the confidentiality of the participants' survey responses. First, all study materials were kept in a locked briefcase, only accessible to the principal investigator, while on the premises of the selected barbershops. Secondly, a Waiver of Written Documentation was obtained from the University of Alabama Institutional Review Board for all eligible study participants, as no personal identifiers (name, birth date, social security number, mailing address, etc.) other than the specified demographic information on the survey was required to complete the survey. All participants were provided with documentation on the purpose of the study and their rights as research participants prior to the administration of the survey. Upon completion, the surveys were stored in the locked briefcase. Data from the briefcase was entered into a spreadsheet as soon as possible by the principal investigator and the research assistant. The spreadsheet was converted into an SPSS file for data analysis. The completed paper copies of the surveys were

stored in a personal locked file cabinet only accessible by the principal investigator once electronic data entry had been completed, and the paper files were destroyed once data analysis had been concluded.

The University of Alabama Institutional Review Board (IRB) reviewed and approved the survey and research methodology for the protection of human subjects in this study. A copy of the approved IRB application is provided in Appendix F.

Risks and Benefits

There was minimal risk involved with the administration of the surveys to African American male barbershop patrons aged 18 and older. The survey sought to assess current knowledge, beliefs and practices on sexual health topics. One risk may have been that there was frustration from not being able to answer all of the questions accurately (Furnham, 1986). To minimize the risk of respondent bias by forcing them to answer a question, participants had the option to skip questions they did not feel comfortable answering. Another risk may have been that the participants may have felt uncomfortable responding to some of the questions (Furnham, 1986). This risk, again, was addressed by informing the participants that they had the right to skip any questions they felt uncomfortable answering, and adding that they could stop taking the survey at any time. Participants also had the option to complete the survey in a private space within the barbershop, identified by the barbershop owners and the study's staff. The benefits could have been that the participants may have received a boost in confidence for each question they thought they answered correctly. Another benefit could have been that participants expressed content in knowing that they played a key role in helping researchers to understand the current sexual behaviors and knowledge of African American men or that they helped to inform

the design and implementation of a culturally tailored program to reduce the spread of HIV and other STI's among African American men.

This study will benefit the discipline and literature on this topic by informing researchers of the current risky sexual behaviors of southern African American males aged 18 and older. The results of this study will aid in the formative assessment for the development of a culturally relevant HIV prevention program for the study's participants.

Description of Analyses

Analyses were conducted for each research question. The Statistical Package for Social Sciences (SPSS) 23.0 were used for all data analyses.

Analyses Operationalized

The following hypotheses corresponded with the research questions for this study.

Hypothesis 1: There was no difference in the prevalence of risky sexual behaviors (i.e., nonuse of condoms, having multiple sexual partners, drug/alcohol use) of African American men in Alabama by population density or sexual identity.

Analysis: Descriptive statistics and frequencies were used in this analysis. Chi-square analysis were used to detect differences in distribution of frequencies by categorical demographic information (Greenwood & Nikulin, 1996).

Hypothesis 2: HIV/AIDS knowledge and the HIV/AIDS-related constructs of the Theory of Planned Behavior did not predict risky sexual behaviors in southern African American men.

Analysis: Binary logistic regression was the statistical tests used to determine the order of items to predict risky sexual behaviors in southern African American men. Descriptive statistics to include means aided in this analysis. The binary logistic regression is useful when the outcome variable is binary, and there are multiple factors considered to be predictors of the outcome (Hosmer, Lemeshow, & Sturdivant, 2013). Since the outcome (engaged in risky sexual behavior) had a binary outcome, engaged or not engaged, then the multiple predictors can be used to determine to what effect the predictors had on the outcome variable.

Hypothesis 3: Southern African American men were not ready for barbershop-based HIV risk reduction programs.

Analysis: Means and standard deviations extracted from descriptive statistics were used to determine the level of readiness for a barbershop-based HIV/AIDS risk reduction program among southern African American men. *T*-tests were conducted to determine if there was a difference in the means between two groups and ANOVAs were conducted to determine if there is a difference in the means between three or more groups for this analysis of readiness. The independent samples *t*-test is robust in detecting a difference in the means of two groups on a specified independent factor, while the ANOVA is robust for detecting a difference in the means of three or more groups (Box, Hunter, & Hunter, 1978). In this case the two groups would be rural/urban.

Hypothesis 4: HIV/AIDS knowledge, the HIV/AIDS-related constructs of the Theory of Panned Behavior, and risky sexual behaviors did not predict readiness for barbershop-based HIV risk reduction programs among southern African American men.

Analysis: A univariate general linear model was used to determine how the constructs of the Theory of Planned Behavior in relation to risky sexual behaviors, HIV/AIDS knowledge, the reported risky sexual behaviors, and other demographics predicted readiness for a barbershop-based HIV/AIDS risk reduction program (if at all). The general linear model uses explanatory variables in a linear combination to explain an outcome variable (Kiebel & Holmes, 2003). Since only one outcome was being explored, readiness for a barbershop-based HIV prevention program, the univariate general linear model was the test of choice.

Sample Size

A power analysis was conducted using G*POWER Version 3.1.9.2 to calculate an appropriate sample size for this study. The alpha level and power were set a priori at .05 and .80, respectively. The most complicated research question, RQ4, was used to calculate the sample size. A small effect size (.10) would have yielded a sample size of 787. A medium effect size (.25) would have yielded a sample size of 128. For convenience, a minimum sample size of 128 was chosen to make inferences about southern African American men's sexual risky behaviors and their readiness for a barbershop-based HIV risk reduction program.

Summary

In this chapter, the methodology for the research study was discussed. The research design and participants were described, as were the instruments and procedures for the study. The protection of participants' information and the process of approval through the university's

Institutional Review Board were detailed as well. Data collection and data analysis, to include the calculation of the sample size needed for the study were discussed.

CHAPTER IV

RESULTS

The current research was an exploratory study to determine: a) the prevalence of risky sexual behaviors among southern African American males, b) the effect of knowledge and the constructs of the Theory of Planned Behavior (Ajzen, 1991) on the men engaging in risky sexual behaviors, c) the level of readiness for a barbershop-based HIV prevention program, and d) how the constructs of the Theory of Planned Behavior, and engaging in risky sexual behaviors influence readiness for a barbershop-based HIV prevention program. The following results were based on data collected in February and March of 2016 at three barbershops, one located in a rural area and two in an urban area.

The Barbershops

Three barbershops were the sites of data collection for this study. Two of the sites were located in Tuscaloosa County, Alabama, which is designated an urban county by the Alabama Rural Health Association, and the third site was located in Dallas County, Alabama, which is designated a rural county by the Alabama Rural Health Association (Alabama Rural Health Association, 2015). The larger barbershop in Tuscaloosa County had a staff of seven barbers, while the smaller barbershop had a staff of three. The barbershop in Dallas County had a staff of nine barbers. The clientele in the barbershops in Tuscaloosa County were mainly on an appointment schedule with some flexibility for walk-ins to receive services. Appointments were made with the barbers in person, on the telephone, or on cellular phone applications. The wait time to receive services at the urban sites ranged from zero to thirty minutes. The barbershop in

Dallas County was on a walk-in, first come, first served basis. The wait time, depending on barber availability at this facility, ranged from twenty minutes to three hours. The three barbershops were similar in that they were open five days of the week with Sundays and Mondays being the selected days that the respective barbershops were not open. Both of the Tuscaloosa County barbershops were open on Tuesdays through Thursdays from 8:00 AM until 4:00 PM. The smaller barbershop opened at 7:00 AM and closed at 4:00 PM on Fridays and Saturdays. The larger barbershop opened at 7:00 AM on Fridays and Saturdays, but closed at 4:00 PM and 6:00 PM on Fridays and Saturdays, respectively. The barbershop in Dallas County opened at 7:00 AM on Tuesdays through Fridays and 4:00 AM on Saturdays.

Three-hundred-ninety-six men were approached to participate in this study. Of those approached, 206 (52.0%) took part in the study (Table 4.1). Reasons for not approaching participants included them being female, too young to participate or not being in the barbershop long enough to be approached. Reasons for not taking part in the study included lack of desire to participate in the study, limited time to complete the survey, or not meeting all of the eligibility requirements. Participants were excluded from the final dataset for analyses due to not self-identifying as African American (n = 2) and not presenting a zip code representative of an Alabama residence (n = 2).

Table 4.1. Barbershop attendance, reach, and participation in study in two days at the site.

Site	# Approached	# Participated	Participation Rate
Tuscaloosa (Smaller)	61	34	55.74%
Tuscaloosa (Larger)	126	73	57.94%
Dallas	209	99	47.37%
Total	396	206	52.02%

Sample Characteristics

The final sample was composed of 202 African American males who completed a paper and pencil survey on their HIV knowledge, sexual behaviors and attitudes, and readiness for a barbershop-based HIV prevention program in the months of February and March at two urban and one rural barbershop. Participants had the option to skip items on the survey if they were uncomfortable answering the items (Table 4.2). Prior to the administration of this survey instrument, it was piloted with five men who met the inclusion criteria for the study using a snowball method in Tuscaloosa County. The men for the pilot were recruited from two beauty salons and a local YMCA. The piloting consisted of the participants providing feedback on the appropriateness of the items, the necessity of certain items, and the length of the instrument. The piloting also provided a more accurate time range of how long it would take the participants in the large scale study to complete the survey. A reliability analysis was conducted after all data was entered from the large-scale study, and the reliability coefficient of the instrument used in this study was .895.

A little over one-half (n = 106) of the participants were recruited from the two urban sites. The mean age of the participants in the study was 30.78 (SD = 10.68). A majority (90.1%) of the men identified as heterosexual, and 42.9% of the participants reported never being married. Many participants (44.2%) reported having completed some college. Of those who disclosed (n = 186), 39.2% of the participants had an annual income of over $41,000.

Table 4.2. Demographic information of the African American males from the barbershops.

Variable	Frequency	Valid Percent	Total Percent
Geographic Location			
Urban	106	52.5	
Rural	96	47.5	100.0
Age Group			
18-24	78	39.4	
25-29	30	15.2	
30-39	48	24.2	
40-49	28	14.1	
50 & older	14	7.1	100.0
Marital Status			
Never married	84	42.9	
In an unmarried relationship	42	21.4	
Married	56	28.6	
Separated	6	3.0	
Divorced	8	4.1	100.0
Sexual Orientation			
Heterosexual	182	95.3	
Bisexual	4	2.1	
Homosexual	4	2.1	
Other	1	0.5	100.0
Education Level			
Less than high school	5	2.5	
High school graduate or GED	63	32.0	
Some college or technical school	87	44.2	
Bachelor's degree	28	14.2	
Graduate or professional school	14	7.1	100.0
Annual household income			
Less than $20,000	54	29.0	
$21,000 to $30,000	38	20.4	
$31,000 to $40,000	21	11.3	
More than $41,000	73	39.3	100.0

Risky Sexual Behaviors

The first research question asked: *What is the prevalence of risky sexual behaviors (i.e., nonuse of condoms, having multiple sexual partners, drug/alcohol use) among a sample of African American men in Alabama and the difference between subgroups?* The prevalence of

risky sexual behaviors was explored using descriptive information (Table 4.3). The recall timeframe was within the last three months. When probed about the nonuse of condoms during oral, vaginal, and anal sexual contact, 51.8% (*n* = 103) of the participants reported nonuse of a condom in this timeframe. When probed about having multiple sexual partners within the same timeframe, 25.5% (*n* = 51) of the participants reported having more than one sexual partner. Nearly half (47.5%) of the participants reported being under the influence of drugs or alcohol while engaging in sexual intercourse. Only three percent (n = 6) of the participants reported sexual intercourse with another male. One participant (0.5%) reported being unsure of whether they engaged in sexual intercourse with a transgender person, while the remainder of the participants reported not doing so. The majority (55.9%) of the participants reported having only one sexual partner in the last three months. The reported number of partners ranged from zero to seven with a mean of 1.580 sexual partners (*SD* = 1.27) (Table 4.4).

The probe on the number of sexual partners was used to gauge how many men were sexually active in the last three months. Only 143 men answered the question, and when the sexually inactive participants were extracted from the analysis (*n* = 13), the frequencies changed (Table 4.5). Eighty participants (61.5%) reported nonuse of condoms during oral, vaginal, and anal sexual contact. Thirty-four (26.2%) reported having multiple sexual partners within the same timeframe. Over half (57.7%) of the participants reported being under the influence of drugs or alcohol while engaging in sexual intercourse. Five (3.8%) of the participants reported sexual intercourse with another male, none of the participants reported being engaged in sexual intercourse with a transgender person in any way.

Table 4.3 Risky sexual behaviors in the last three months with valid percentages.

Variable	Yes	No	Don't Know	Never Engaged in Activity
In the last 3 months				
Nonuse of Condom	103 (51.8%)	88 (44.2%)	5 (2.5%)	3 (1.5%)
>1 Sexual Partner	51 (25.5%)	141 (70.5%)	2 (1.0%)	6 (3.0%)
Under Influence of Drugs/Alcohol	95 (47.5%)	96 (48.0%)	3 (1.5%)	6 (3.0%)
Same-sex Intercourse	6 (3.0%)	177 (88.5%)	1 (0.5%)	16 (8.0%)
Transgender Intercourse	0 (0.0%)	183 (91.5%)	1 (0.5%)	16 (8.0%)

Table 4.4. Number of sexual partners in the preceding three months.

Number of Sexual Partners	Frequency	Valid Percent
0	13	9.1
1	80	55.9
2	28	19.6
3	9	6.3
4	4	2.8
5	8	5.6
6	0	0.0
7	1	0.7
Total	143	100.0

Table 4.5. Risky sexual behaviors in the last three months among sexually active participants with valid percentages.

Variable	Yes	No	Don't Know	Never Engaged in Activity
In the last 3 months				
Nonuse of Condom	80 (61.5%)	48 (36.9%)	1 (0.8%)	1 (0.8%)
>1 Sexual Partner	34 (26.2%)	94 (72.3%)	0 (0.0%)	2 (1.5%)
Under Influence of Drugs/Alcohol	75 (57.7%)	52 (40.0%)	1 (0.8%)	2 (1.5%)
Same-sex Intercourse	5 (3.8%)	115 (88.5%)	0 (0.0%)	10 (7.7%)
Transgender Intercourse	0 (0.0%)	120 (92.3%)	0 (0.0%)	10 (7.7%)
In the last 30 days				
Oral sex	86 (66.2%)	42 (32.3%)	-	1 (0.8%)
Vaginal sex	109 (83.8%)	21 (16.2%)	-	0 (0.0%)
Anal sex	7 (5.4%)	116 (89.2%)	-	7 (5.4%)

Among those who reported a sexual partner and were sexually active within the preceding 30 days, 66.2 % reported engaging in oral sex, 83.8% reported engaging in vaginal sex, and 5.4% reported engaging in anal sex (Table 4.5). When probed about condom use or other protective measures during specific sexual acts within the preceding 30 days, 16.8% of those sexually active reported always using a condom or other protective barrier during oral sex, 26.0% reported always using a condom or other protective barrier during vaginal sex, and 25.5% reported always using a condom or other protective barrier during anal sex (Table 4.6).

Table 4.6. Condom or other protective barrier use among sexually active participants in last 30 days with valid percentages.

Response	Oral sex	Anal sex	Vaginal sex
Never	69 (58.0%)	24 (51.1%)	47 (38.2%)
Rarely	8 (6.7%)	5 (10.6%)	12 (9.8%)
Sometimes	15 (12.6%)	5 (10.6%)	17 (13.8%)
Most of the time	7 (5.9%)	1 (2.1%)	15 (12.2%)
Always	20 (16.8%)	12 (25.5%)	32 (26.0%)

Chi-Square tests were conducted to determine if there was a difference in engaging in the risky sexual behaviors (nonuse of a condom, having multiple sexual partners, and using alcohol and/or drugs during a sexual encounter) based on the demographic information (geographic setting, age group, education level, income, and marital status) that was collected during the administration of the survey (Table 4.7). Only those who were certain of engaging in the risk behavior (yes = 1 or no = 2) were included in the analysis. The participants who were uncertain (don’t know = 3) were excluded. The three risk behaviors were chosen based upon the adequacy of distribution of the responses to the probes. The other items (same-sex intercourse and sex with a transgender person) were excluded due to infrequent positive responses.

Table 4.7. Chi-square test statistics of risky sexual behaviors of those sexually active by demographic variables.

Variable	Condom Nonuse	>1 Sexual Partner	Alcohol/Drug Use
Geographic Setting	.02	.48	.08
Age Group	2.72	5.58	.63
Education Level	1.78	4.47	9.46
Income	10.60*	6.70	1.27
Marital Status	5.40	8.53*	2.09

* - Indicates significance at the .05 level

Nonuse of Condoms. Pertaining to the nonuse of a condom during sexual encounters in the preceding three months, there was no significance detected based on the geographic setting (chi square = .02, p = .891 with df = 1), age group (chi square = 2.72, p = .605 with df = 4), education level (chi square = 1.78, p = .776 with df = 4), or marital status (chi square = 5.4, p = .067 with df = 2). However, there was significance detected in the engagement in this behavior by income (chi square = 10.60, p = .014 with df = 3). The chi-square percentages showed that men who had an income greater than $41,000 represented the larger proportion of men to report nonuse of a condom compared to those making $30,000 or less (Table 4.8).

Table 4.8. Chi-square frequencies and percentages of having sex without a condom by marital status.

Condom Nonuse	< $20,000	$21,000 to $30,000	$31,000 to $40,000	> $41,000
Yes	18 (52.9%)	12 (46.2%)	10 (90.9%)	40 (72.7%)
No	16 (47.1%)	14 (53.8%)	1 (9.1%)	15 (27.3%)
	34 (100.0%)	26 (100.0%)	11 (100.0%)	55 (100.0%)

Multiple Sexual Partners. Pertaining to having multiple sexual partners, there was no significance detected based on geographic setting (chi square = .48, p = .488 with df = 1), age group (chi square = 5.58, p = .233 with df = 4), education level (chi square = 4.47, p = .346 with df = 4) or income (chi square = 6.70, p = .082 with df = 3). There was, however, significance

detected in the engagement in this behavior by marital status (chi square = 8.53, p = .014 with df = 2). The chi-square percentages suggested that men who were never married were most likely to have multiple sexual partners (Table 4.9).

Table 4.9. Chi-square frequencies and percentages for having multiple sexual partners by marital status.

Multiple Sexual Partners	Never married	In an unmarried relationship	Married
Yes	20 (40.0%)	6 (20.0%)	5 (13.5%)
No	30 (60.0%)	24 (80.0%)	32 (86.5%)

Drug and/or Alcohol Use. Pertaining to the use of drugs and/or alcohol while engaging in sexual intercourse, there was no significance detected based on the geographic setting (chi square = .08, p = .774 with df = 1), age group (chi square = .63, p = .960 with df = 4), education level (chi square = 9.46, p = .051 with df = 4), income (chi square = 1.27, p = .736 with df = 3), or marital status (chi square = 2.09, p = .351 with df = 2).

Predictors of Risky Sexual Behaviors

The second research question asked: *Do HIV/*AIDS *knowledge, attitudes, perceived behavioral control, subjective norms, and intentions to use condoms predict risky sexual behaviors in southern African American men?* The four constructs of the Theory of Planned Behavior (attitudes, subjective norms, perceived behavioral control, and intentions) and HIV/AIDS knowledge were used to predict risky sexual behaviors (nonuse of condoms, having multiple sexual partners, and using drugs and/or alcohol) using a binary logistic regression. A mean score was created for the attitudes, subjective norms, perceived behavioral control, and intentions items, respectively (Table 4.10). Negatively written items were reverse coded before the respective scores were calculated. The minimum score could have been one, and the maximum score could have been five. The increase in score corresponds with an increase in

attitudes, subjective norms, perceived behavioral control, and intentions, respectively. For this study, the overall mean attitudes score was 3.90 (*SD* = .63). The overall mean subjective norms score was 3.83 (*SD* = .65). The overall mean perceived behavioral control score was 3.9 (*SD* = .85). The overall mean intentions score was 3.80 (*SD* = .62). The HIV knowledge items (*n* = 12) were scored, and the percentage of correct responses (*M* = 78.01; *SD* = 15.58) were used for these analyses. Only participants who reported being sexually active in the preceding three months were used for these analyses. The reliability of the instrument overall was .895, although the reliabilities of the subscales varied. For the Theory of Planned Behavior, the attitudes score was the highest (.900), followed by intentions (.853), perceived behavioral control (.417), and subjective norms (.352). The HIV knowledge score was .555 (Table 4.10).

Nonuse of condoms. A logistic regression analysis was conducted to predict nonuse of condoms of 108 participants who were sexually active in the preceding three months using a calculated attitudes score, subjective norms score, perceived behavioral control score, intentions score, and the percentage of correct HIV knowledge items as predictors. None of the predictors (attitudes score, subjective norms score, perceived behavioral control score, intentions score, and knowledge percentage correct) were significant univariate predictors of nonuse of condoms. A test of the full model against a constant only model was statistically insignificant, indicating that the predictors as a set unreliably distinguished between condom users and nonusers (chi square = 5.73, $p = .334$ with df = 5).

Table 4.10. Mean scores of Theory of Planned Behavior constructs, HIV knowledge, and readiness for barbershop-based HIV prevention with reliability scores.

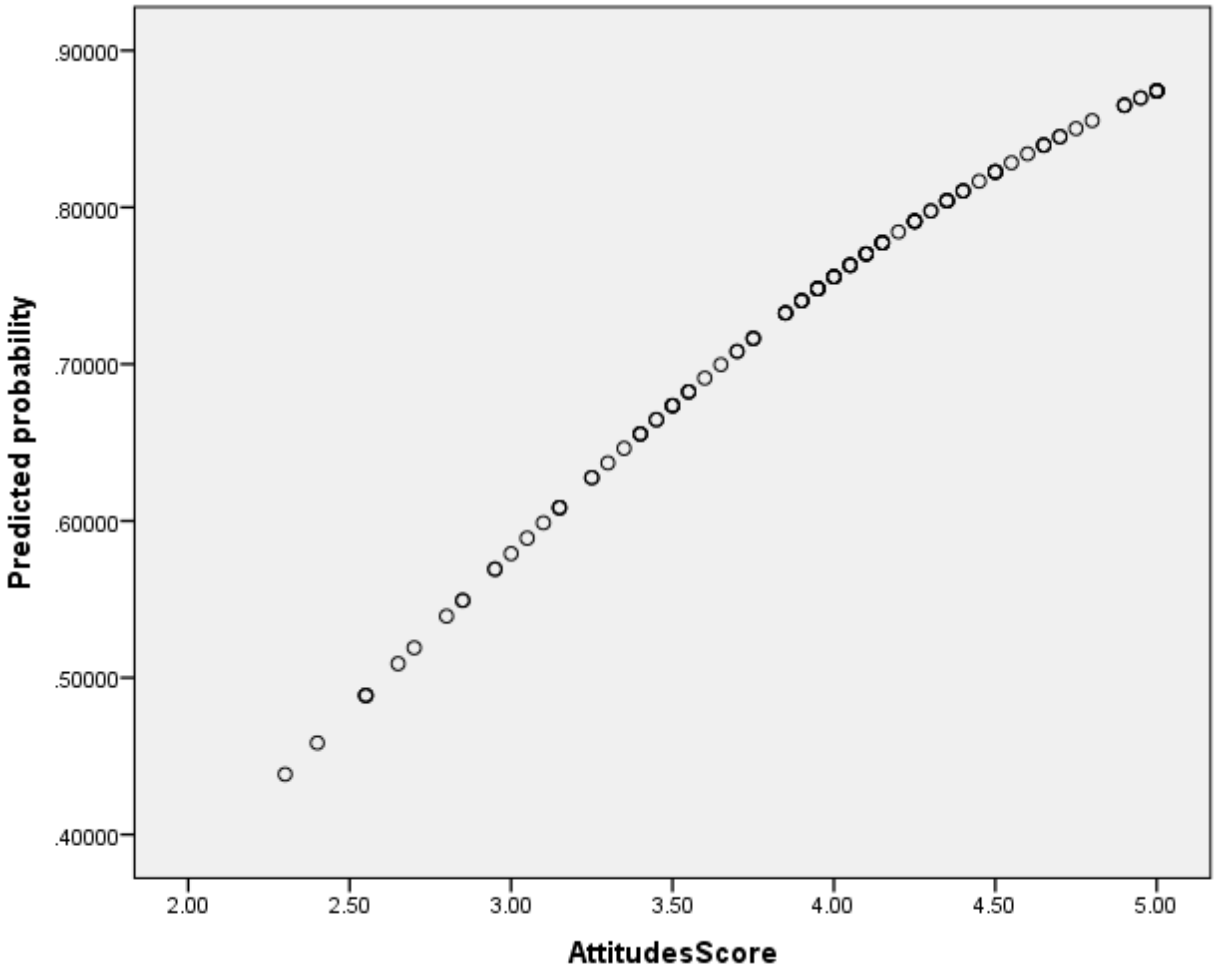
	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Reliability
Attitudes	2.30	5.00	3.90	.63	-.28	-.48	.900
Subjective Norms	1.50	5.00	3.83	.65	-.22	.18	.352
Perceived Behavioral Control	1.00	5.00	3.91	.85	-.71	.66	.417
Intentions	1.00	5.00	3.80	.62	-1.18	2.43	.853
HIV Knowledge	8.33	100.00	78.01	15.58	-1.16	2.45	.555
Readiness	1.38	5.00	3.78	.75	-.36	.36	.889

Multiple sexual partners. A logistic regression analysis was conducted to predict not having multiple sexual partners of 108 participants who reported the amount of sexual partners and were sexually active in the preceding three months using a calculated attitudes score, subjective norms score, perceived behavioral control score, intentions score, and the percentage of correct HIV knowledge items as predictors. Only the attitudes score was a significant univariate predictor of not having multiple sexual partners ($p = .009$). A test of the full model against a constant only model was statistically significant (chi square = 18.41, $p = .002$ with df = 1). The Nagelkerke's R^2 of .228 indicated a weak relationship between prediction and grouping. The prediction success was 77.8% (31.0% for those who reported multiple sexual partners and 94.9% for those who did not), and the Wald criterion, again, illustrated that the attitudes score made a significant contribution to prediction ($p < .001$). After controlling for other variables, the odds ratio value indicated that when the attitudes score was raised by one unit, the odds ratio was 5.37 and, therefore, participants were 5.37 times more likely to not have multiple sexual partners.

A follow-up logistic regression was run using only attitudes as a predictor of not having multiple sexual partners. The analysis included 113 participants. The attitudes score was a significant predictor of not having multiple sexual partner ($p = .013$). The full model tested against the constant model was statistically significant (chi square = 6.13, $p = .013$ with df = 1). The Nagelkerke's R^2 of .077 indicated a weak relationship between prediction and grouping. The prediction success was 74.3%, and the Wald criterion, again, illustrated that the attitudes score made a significant contribution to prediction ($p = .016$). The odds ratio value indicated that when the attitudes score was raised by one unit, the odds ratio was 2.25 and, therefore, participants were 2.25 times more likely to not have multiple sexual partners.

The predicted probability of not having multiple sexual partners was plotted against the attitudes score and the graph showed a relationship between the two (Figure 1). As the attitudes score increased, so did the predicted probability.

Figure 1. Plot of predicted probability of not having multiple sexual partners by attitudes towards condom use score of participants.

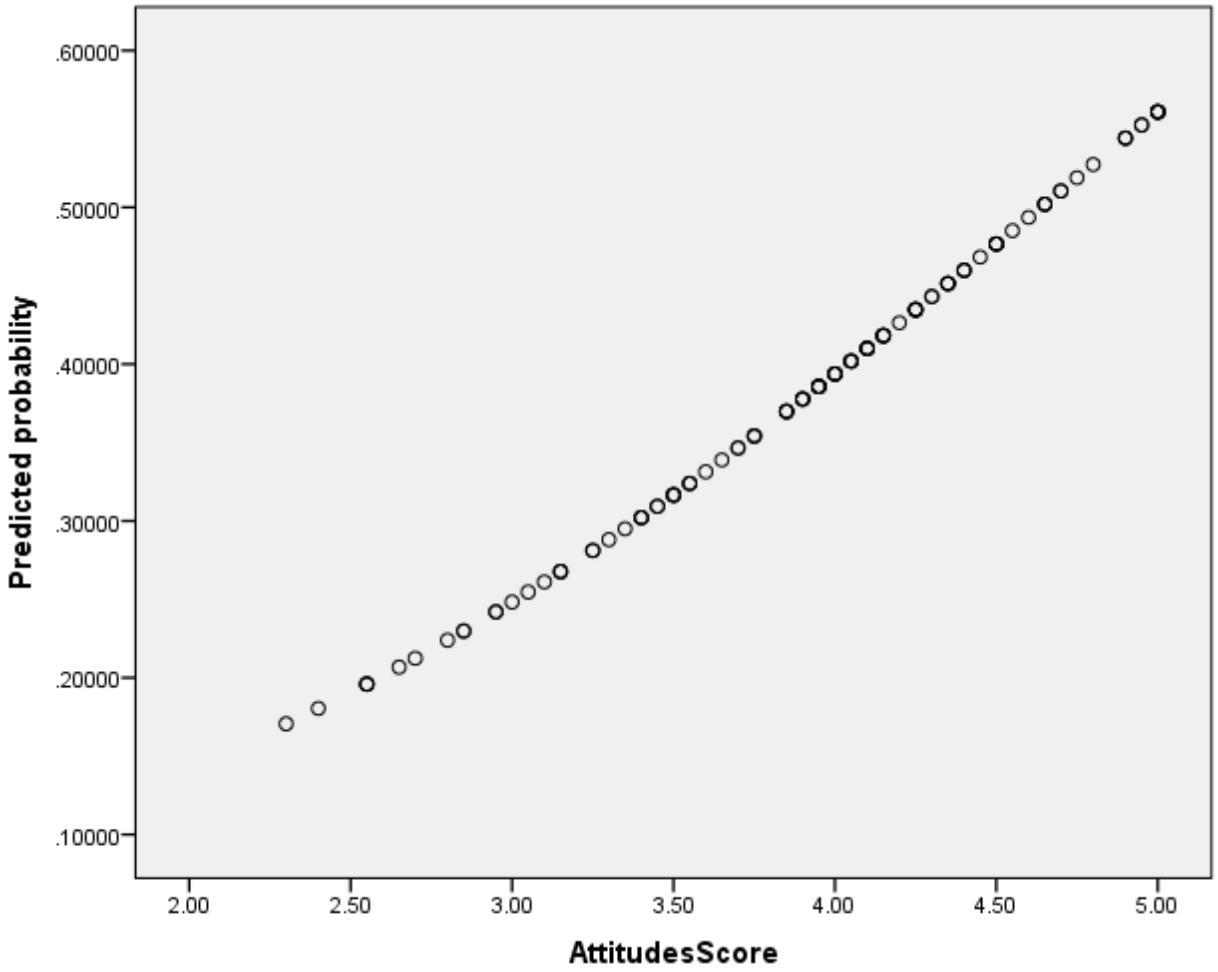


Drugs and/or alcohol use. A logistic regression analysis of 108 participants who were sexually active in the preceding three months was conducted to predict not using drugs and/or alcohol during sexual encounters using a calculated attitudes score, subjective norms score, perceived behavioral control score, intentions score, and the percentage of correct HIV knowledge items as predictors. Only the attitudes score was a significant univariate predictor of not using drugs and/or alcohol during a sexual encounter ($p = .034$). A test of the full model against a constant only model was statistically insignificant (chi square = 8.09, $p = .151$ with df = 5).

A follow-up logistic regression was run using only attitudes as a predictor of not using drugs and/or alcohol during a sexual encounter. The analysis included 113 participants. The attitudes score was a significant predictor of not using drugs and/or alcohol during a sexual encounter ($p = .031$). The full model tested against the constant model was statistically significant (chi square = 4.82, $p = .028$ with df = 1). The Nagelkerke's R^2 of .057 indicated a weak relationship between prediction and grouping. The prediction success was 55.8%, and the Wald criterion, again, illustrated that the attitudes score made a significant contribution to prediction ($p = .034$). The odds ratio value indicated that when the attitudes score was raised by one unit, the odds ratio was 1.97 and, therefore, participants were 1.97 times more likely to not use drugs and/or alcohol during a sexual encounter.

The predicted probability of not using drugs and/or alcohol was plotted against the attitudes score and the graph showed a linear relationship between the two (Figure 2). As the attitudes score increased, so did the predicted probability.

Figure 2. Plot of predicted probability of not using drugs and/or alcohol by attitudes towards condom use score of participants.



Readiness for Barbershop-Based HIV Programs

The third research question asked: *What is the level of readiness among southern African American men for barbershop-based HIV risk reduction programs?* A score was created based on the means of the survey questions to the prompts about using the barbershop as a site to deliver health information. In particular, these items explored HIV prevention information, the perceived readiness of barbers to be communicators of this information, and the willingness of participants to participate in such a program. The minimum score could be 1, implying not being

open to such a program or any of the components and the equivalent of strongly disagree on a five-point Likert-type item. The maximum score could be 5, implying being completely open to such a program any of the components and the equivalent of strongly agree on a five-point Likert-type item. The mean score from the three sites was 3.78 with a standard deviation of .75, indicating that the participants were fairly ready for a barbershop-based HIV prevention program. The reliability of the barbershop readiness items was .889 (Table 4.10). A descriptive table of the responses to the readiness items can be found in Appendix G.

Participants' level of readiness was explored using the demographic information provided in the survey (Table 4.11). An independent samples *t*-test was run to determine if there was a difference in the level of readiness for a barbershop-based HIV prevention program by the geographic setting of the barbershop. There was no significant difference ($p = .790$) between the level of readiness score and the patrons of urban ($M = 3.79$; $SD = .75$) and rural ($M = 3.77$; $SD = .75$) barbershops. ANOVAs were run on the other demographic variables (age group, education level, income, and marital status). Age group had no significant impact ($p = .715$) on the level of readiness for a barbershop-based HIV prevention program. There was a significant difference in level of readiness for a barbershop-based HIV prevention program based on education level ($p = .035$). While the Bonferroni post-hoc test yielded no significant differences, the largest mean difference by education level was between those who had some college or technical education ($M = 3.96$; $SD = .67$) and those with a graduate or professional degree ($M = 3.42$; $SD = 1.19$), indicating that those with some college or technical education were most prepared for a barbershop-based HIV prevention program and those with a graduate or professional degree were least prepared for such a program. Income ($p = .109$) yielded no significant results. Marital status yielded no significant difference ($p = .853$) among the different categories (Note: For this

analysis, marital status included three groups due to non-normal distribution: never married, in an unmarried relationship, and married).

Table 4.11. Readiness for a barbershop-based HIV prevention program by demographic

Variable	Mean	Std. Dev.	F	Sig.
Site Location				
Urban	3.79	.76	.457	.790
Rural	3.77	.75		
Age				
18-24	3.74	.69	.528	.715
25-29	3.66	.89		
30-39	3.90	.83		
40-49	3.83	.76		
50 & older	3.77	.54		
Marital Status				
Never married	3.81	.67	.538	.708
In an unmarried relationship	3.73	.85		
Married	3.80	.80		
Education Level				
Less than high school	3.5	.33	2.648	.035
High school graduate or GED	3.65	.77		
Some college or technical school	3.96	.67		
Bachelor's degree	3.67	.67		
Graduate or professional school	3.42	1.19		
Annual household income				
Less than $20,000	3.70	.66	2.048	.109
$21,000 to $30,000	3.99	.73		
$31,000 to $40,000	4.03	.72		
More than $41,000	3.80	.83		

Predictors of Readiness for Barbershop-Based HIV Prevention Programs

The final question asked: *Do HIV/AIDS knowledge, attitudes, perceived behavioral control, subjective norms, intention to use condoms, and risky sexual behaviors predict readiness for barbershop-based HIV risk reduction programs among southern African American men?* In a correlations matrix, readiness and attitudes were positively, but weakly correlated with each other (r = .207; p = .032), as were readiness and perceived behavioral control (r = .211; p = .030)

(Table 4.12). Also of note were significant relationships between intentions and its antecedents in the Theory of Planned Behavior, attitudes (r = .464; p < .001), subjective norms (r = .343; p < .001), and perceived behavioral control (r = .704; p < .001). T-tests revealed no significant differences in sexual behavior and readiness for a barbershop-based HIV prevention program (Table 4.13).

Table 4.12. Constructs of Theory of Planned Behavior, HIV knowledge, and readiness for a barbershop-based HIV prevention program.

	Readiness	Attitudes	Subj. Norms	PBC	Intentions	Knowl.
Readiness						
Pearson Correlation	1	.207	.077	.211	.159	.098
Sig. (2-tailed)		.032*	.432	.030*	.104	.318
Attitudes						
Pearson Correlation	.207	1	.260	.528	.464	.280
Sig. (2-tailed)	.032*		.008**	.000**	.000**	.004**
Subj. Norms						
Pearson Correlation	.077	.260	1	.391	.343	.060
Sig. (2-tailed)	.432	.008**		.000**	.000**	.544
PBC						
Pearson Correlation	.211	.528	.391	1	.704	.042
Sig. (2-tailed)	.030*	.000**	.000**		.000**	.668
Intentions						
Pearson Correlation	.159	.464	.343	.704	1	.094
Sig. (2-tailed)	.104	.000**	.000**	.000**		.317
Knowl.						
Pearson Correlation	.098	.280	.060	.042	.094	1
Sig. (2-tailed)	.318	.004**	.544	.668	.317	

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 4.13. Readiness for a barbershop-based HIV prevention program by engagement in risky sexual behaviors.

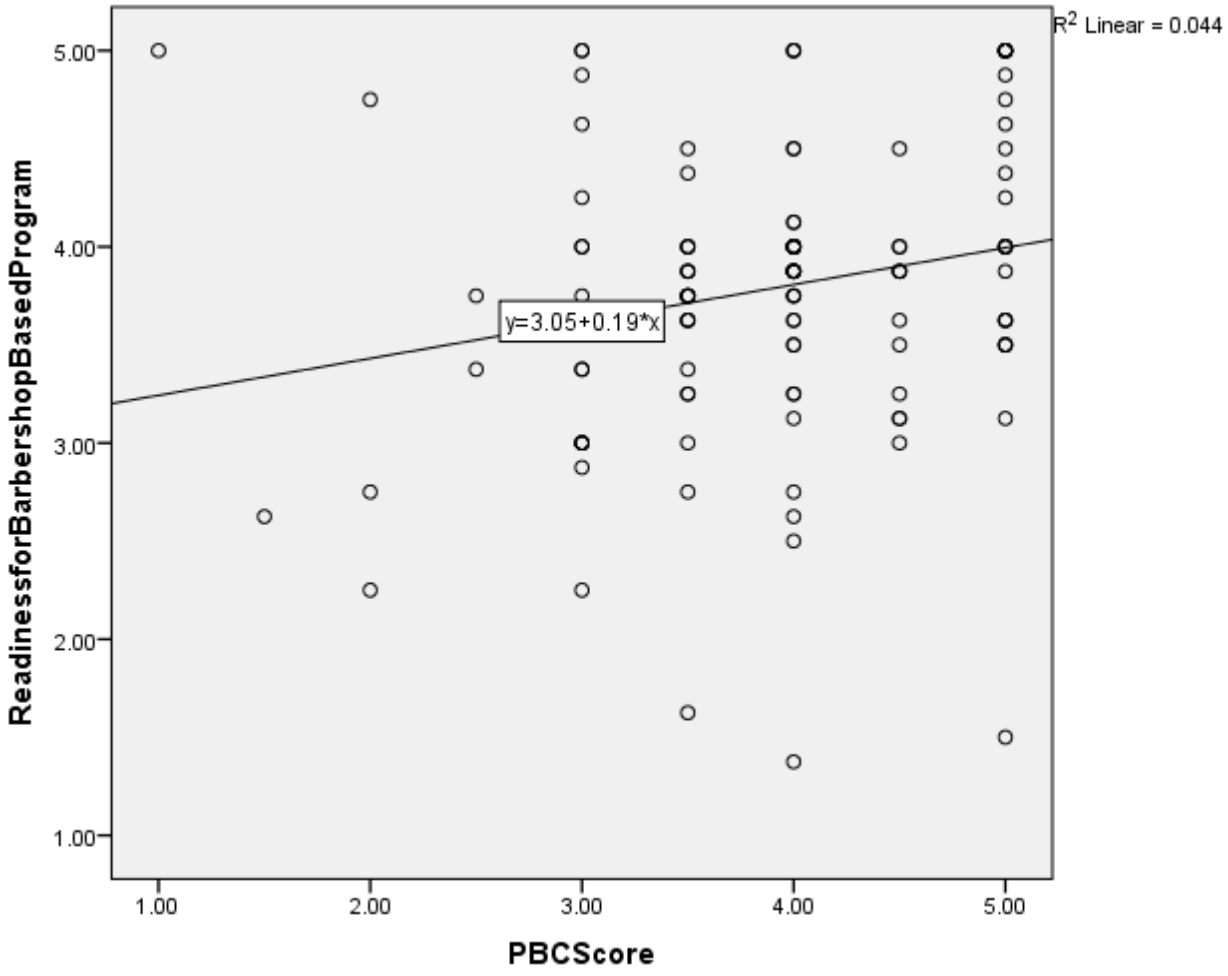
	Mean	Std. Dev.	F	Sig.
Nonuse of a condom				
Yes	3.78	.77	.162	.835
No	3.81	.74		
Multiple sexual partners				
Yes	3.92	.74	.010	.228
No	3.74	.76		
Drug and/or alcohol use				
Yes	3.83	.79	1.112	.429
No	3.72	.71		

A univariate general linear model was run and revealed that having multiple sexual partners was a significant predictor of readiness for a barbershop-based HIV prevention program after controlling for other variables (p = .046); however, the corrected model was not significant (p = .425) (Table 4.14). The univariate general linear model analysis was followed up by a linear regression. The linear regression yielded an insignificant model when attitudes, subjective norms, perceived behavioral control, intentions, and HIV knowledge were used as predictors of readiness for a barbershop-based HIV prevention program (p = .273). A stepwise regression using the same constructs (attitudes, subjective norms, perceived behavioral control, intentions, and HIV knowledge) was conducted, and a significant model was produced (p = .030). The results of this regression suggested that perceived behavioral control was the only significant predictor of readiness for a barbershop-based HIV prevention program. Perceived behavioral control only explained 4.4% of the variance in the model for readiness for a barbershop-based HIV prevention program. The relationship between perceived behavioral control and readiness for a barbershop-based HIV prevention program in Figure 3 illustrated that there was a positive relationship between the two.

Table 4.14. Tests of between-subject effects

Dependent Variable	F	Sig.	Partial Eta Squared	Observed Power
Corrected Model	1.034	.425	.118	.561
Intercept	14.784	.000	.137	.967
Attitudes score	2.398	.125	.025	.335
Subjective norms score	.213	.645	.002	.074
Perceived behavioral control score	.725	.397	.008	.135
Intentions score	.087	.768	.001	.060
HIV Knowledge	.065	.799	.001	.057
Sexual contact without condom	1.696	.196	.018	.252
>1 sexual partner	4.086	.046	.042	.516
Drug/alcohol consumption	.454	.502	.005	.102
Sexual contact without condom x >1 sexual partner	2.721	.102	.028	.372
Sexual contact without condom x drug/alcohol consumption	1.361	.246	.014	.211
>1 sexual partner x drug/alcohol consumption	1.758	.188	.019	.259
Sexual contact without condom x >1 sexual partner x drug/alcohol consumption	.936	.336	.010	.160

Figure 3. Relationship between barbershop readiness and perceived behavioral control.



Barbers' Feedback on a Barbershop-Based HIV Prevention Program

Prior to the conclusion of the last day of data collection at each barbershop, the individual barbers were approached to answer questions about the number of clients they served and the amount of time it took to provide those services, and what they thought (level of readiness, willingness to participate, barriers to implementation, and potential benefits of the program) of a barbershop-based health program specifically focusing on HIV prevention. The six-item questionnaire was administered orally by the principal investigator, and the responses were written on the blank questionnaire. The survey took approximately eight minutes to administer to

each barber. Seventeen of the barbers answered the questions. One barber chose not to participate in this component of the study, and another had already left the premises by the time the questionnaire was administered. The data was handwritten on site, typed into an Excel file, and analyzed for trends.

The range of customers served by each barber was between 15 and 300 customers per week depending on the individual barbers' availability. The length of time the customers spent in the barbers' chairs could be as brief as ten minutes for one barber and thirty minutes for most other barbers. When asked about their readiness to have health information delivered in the barbershop, most (82.35%) mentioned being somewhere in the neutral to completely ready range. The remainder expressed disinterest and said they would not participate in a health program. When asked about their willingness to participate in a barbershop-based HIV prevention program, fewer (70.59%) were in the neutral to completely ready range. One barber expressed his enthusiasm and his current engagement in the education of African American men by saying, "I tell them all the time AIDS is something serious," while another barber said that he would engage in discussion about the topic "…if it comes up." When asked about barriers to delivering a barbershop-based HIV prevention program, seven (41.18%) barbers said that nothing would hinder them. However, that was not the case for all barbers. Some mentioned time, patience, customer willingness, knowledge, and the presence of women in the barbershop. One barber mentioned that the topic doesn't come up in the barbershop. In expressing his displeasure with a proposed barbershop-based HIV prevention program, another barber said, "They business ain't my business." The final item asked what the barbers thought the potential benefits of participating in this type of program would be. The answers ranged from increasing knowledge to decreasing the spread of the virus and decreasing teenage pregnancies to building

community capacity. One barber said that participation in this program would be a step in the direction of “preserving our race,” referencing the racial disparity in the acquisition of HIV and other diseases in the African American community. While the one barber thought more globally about the impact participation in a barbershop-based HIV program have, another expressed his opinion on the dissemination of HIV prevention information to African American men in the barbershop by saying, "I don't feel like it would do shit. People will do what they want to.”

Summary

The results of this study were delineated in Chapter 4. Descriptive statistics were used to describe the sample. Descriptive statistics, frequencies, and chi-square analyses were used to illustrate the prevalence of risky sexual behaviors among southern African American men. Binary logistic regressions were used to determine if the constructs of the Theory of Planned Behavior impacted engagement in risky sexual behaviors. Means, standard deviations, *t*-tests and ANOVAs were used to quantify the level of readiness and difference between groups. Finally, a univariate general linear model was used to determine if engagement in risky sexual behaviors and the antecedents to the behaviors predicted readiness for barbershop-based HV prevention programs.

CHAPTER V

DISCUSSION

African Americans are disproportionately affected by the HIV epidemic and males make up most of the new cases of the virus (CDC 2015a; CDC 2015b). While targeting African Americans as a whole is important, innovative methods are critical for minimizing the impact of the epidemic on this group. Black barbershops have been identified as a venue to access African American men for research, and have been the sites of several programs about their health (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013, 2013; Linnan, D'Angelo, & Harrington, 2014; Luque, Ross, & Gwede, 2014). The present research was an exploratory study to examine the risky sexual behaviors of southern African American men and their readiness for barbershop-based HIV prevention programs. It was the first to use a scale to assess readiness for barbershop-based HIV prevention programs. It was also the first documented study to determine how engagement in risky sexual behaviors and the antecedents to risky sexual behaviors influence readiness for such programs.

In this chapter, the study's research questions were evaluated. Inferences were made based upon the analysis of the research questions and practical implications for health education and health promotion were provided. Additionally, limitations and strengths of the study were outlined, and future research were suggested. Finally, conclusions were made about the study.

Overview of Sample

The sample for this study included African American males living in both rural and urban regions of Alabama. Participants voluntarily disclosed the information attained. The rural county,

Dallas, is one of the central counties in the Black Belt of Alabama, a region known for its dark rich soil for agriculture, its high concentration of African Americans, and its economic despair (Winemiller, 2009; Tullos, 2004). The urban county, Tuscaloosa, is due east of the most northwestern Black Belt County, and is north of two other Black Belt counties. Residents of this region of the state were well-represented in this study. Ninety-six participants were recruited from the barbershop in Dallas County and 106 were recruited from the barbershops in Tuscaloosa County. This was the largest sample of African American men to participate in a study about sexual behaviors and HIV prevention exclusively from barbershops. This was in comparison to urban-based studies that used barbershops as sites of recruitment (Baker et al., 2012; Taylor et al., 2014; Wilson et al., 2014).

The participants were predominantly heterosexual (95.2%). Over half (54.6%) were under the age of thirty. Two-fifths (42.86%) had never been married, two-fifths (44.2%) had some college or technical education, and nearly two-fifths (39.25%) had an annual income greater than $41,000.

Risky Sexual Behaviors

The first research question asked: *What is the prevalence of risky sexual behaviors (i.e., nonuse of condoms, having multiple sexual partners, drug/alcohol use) among a sample of African American men in Alabama and the difference between subgroups?* The findings of this study provided some insight on the risky sexual behaviors of Alabama men, which could aid in contextualizing why epidemiological data about HIV acquisition appears the way it does at the local, state, and, maybe, national level (Alabama Department of Public Health 2015a; Alabama Department of Public Health 2015b; Alabama Department of Public Health, 2013; CDC 2015a; CDC 2015b). Three-fifths (61.5%) of the sexually active men in this study did not use a condom

at some point in the preceding three months, which is congruent with the results of a similar New York-based study where 62% of the sexually active men reported inconsistent condom use (Taylor et al., 2014). While the condom use percentages may be similar between Alabama and New York, concerns should be raised as the HIV acquisition rate in New York was approximately 4.2 times that of Alabama's in New York in 2013 (Alabama Department of Public Health, 2015c; New York State Department of Health, 2015). Often cited reasons for inconsistent condom use include having main and casual sexual partners with differing condom use preferences, partner distrust, or being "caught up in the moment" or absorbed without considering the consequences (Bowleg, Mingo, & Massie, 2013; Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Frye et al., 2012; Gorbach & Holmes, 2003; Kennedy et al., 2007; Woolf-King and Maisto, 2015). Strategies should be developed to encourage consistent condom use among African American men, especially since the Centers for Disease Control predicted that one in sixteen of these men will contract HIV in their lifetime (CDC, 2014).

One-quarter (26.2%) of the sexually active men in this study reported having multiple sexual partners. This percentage was lower than the 61% reported by heterosexual men in a New York study (Taylor et al., 2014). It is unclear if those who reported multiple sexual partners were in brief, sequential relationships or if there was partner concurrency in these instances as this data was not obtained (Kelley, Borawski, Flocke, & Keen, 2003). Although it has been suggested that monogamy has been linked to inconsistent condom, a recent study reported that African American men in monogamous relationships were more likely to report consistent condom use (Hammer, Fisher, Fitzgerald, & Fisher, 1996; Ricks, Geter, Crosby, & Brown, 2014). Nonetheless, partner monogamy should be encouraged among African American men to minimize the likelihood of exposure to HIV.

Over half (57.7%) of the sexually active participants in this study reported drug/alcohol use during a sexual encounter in the last three months. This is in sharp contrast to the 23% of African American men who reported drug and/or alcohol use in a Mississippi-based study, and the 29% and 12% who reported alcohol and drug use, respectively, in New York (Taylor et al., 2014; Williams & Sallar, 2010). This finding may be unique to the sample of men who participated in this study, as the finding was not similar to the men in the same region of the country, Mississippi (Williams & Sallar, 2010). Alcohol and/or drug use before sexual intercourse has been shown to increase the likelihood of engagement in other risky sexual behaviors (Browne, Clubb, Wang, & Wagner, 2009). Alcohol, in particular, has been shown to lower inhibitions and impact condom negotiation skills, reducing the likelihood of using condoms (Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Fortenberry, 1995; Kogan et al., 2010; Millstein & Moscicki, 1995; Morrison, DiClemente, Wingwood, & Collins, 1998; NIAAA, 2015; Seth, Wingwood, DiClemente, & Robinson, 2011; Wang, Matthew, Chiu, Yan, & Bellamy, 2007; Wingwood & DiClemente, 1998; Woolf-King & Maisto, 2015). The high percentage of men who engaged in drug/alcohol use during sexual intercourse in this study suggests that the repercussions associated with impaired sexual intercourse should be emphasized in drug education and sexual education messages tailored for African American men.

There was a difference detected in condom use by income. Further analysis suggested that men who made over $41,000 annually were the largest group to report not using condoms in the last three months. A previous study reported that lower-middle-income African American men had low levels of consistent condom use (Bowleg, 2004). Income was not explored in categories greater than $41,000 and over in this study, but it is plausible to assume that most men

in this income classification were considered at least at lower middle income levels. Men with higher incomes would be better prepared financially to deal with the consequences of having sex without condoms (e.g., pregnancy or treatment for STI's), which might explain some of the risk-taking behavior.

There was a difference detected in having multiple sexual partners by marital status. The three comparison groups were married men, men in unmarried relationships, and men who had never been married. The men who had never been married were the most likely to report having multiple sexual partners. Being single was as a predictor of concurrency, or having overlapping sexual relationships, in a previous study (Adimora, Schoenbach, & Doherty, 2007). While monogamy can be encouraged among African American men, a more practical recommendation for health education and promotion professionals would be to develop programs that encourage consistent condom use among men who have multiple sexual partners to lessen their likelihood of contracting HIV.

Predictors of Risky Sexual Behaviors

The second research question asked: *Do HIV/*AIDS *knowledge, attitudes, perceived behavioral control, subjective norms, and intention to use condoms predict risky sexual behaviors in southern African American men?* This study used HIV knowledge and the four constructs of the Theory of Planned Behavior to predict condom use, having multiple sexual partners, and using drugs/alcohol during a sexual encounter. The results indicated that none of the constructs of the Theory of Planned Behavior or HIV knowledge were predictive of condom use. This was in contrast to studies where attitudes, subjective norms, and perceived behavioral control were predictive of intentions, which was, in turn, predictive of condom use (Asare, 2015; Protogerou, Flisher, Wild, & Aaro, 2013). Other studies have resulted in at least one construct of

the Theory of Planned Behavior being predictive of either condom use intentions or condom use behaviors (Jemmott et al., 2007; Wise, Goggin, Gerkovich, Metcalf, & Kennedy, 2006). While HIV/AIDS knowledge was impactful on reducing condom use errors, it was not useful in predicting condom use, which was observed in this study (Garofalo et al., 2015; Geringer, Marks, Allen, & Armstrong, 1993). An alternative theory may be needed to understand the antecedents of condom use among African American men in Alabama.

Attitudes were a significant predictor of having multiple sexual partners. Former research, however, has not exclusively used the Theory of Planned Behavior to predict having multiple sexual partners. It was presumed that partnership status and partner trust may have been influential in shaping the attitudes of the men, which impacted engaging in sexual intercourse with multiple sexual partners (Bowleg, Mingo, & Massie, 2013; Gorbach & Holmes, 2003; Kennedy et al., 2007; Woolf-King and Maisto, 2015). In cases where men had main and casual partners, men were more likely to report nonuse of condoms with casual partners (Gorbach & Holmes, 2003). In a review of heterosexual college students' HIV risk, knowledge was not predictive of having fewer sexual partners, which was consistent with the results of this study (Lewis, Malow, & Ireland, 1997). Positive reinforcement and/or other factors may be necessary to improve African American males' attitudes to have any impact on helping the men to become and/or remain monogamous.

None of the constructs of the Theory of Planned Behavior or HIV knowledge formulated a model predictive of engaging in drug/alcohol use while having intercourse; however, the attitudes construct was a stand-alone predictor of drug/alcohol use. Alcohol use, in particular, has been shown to affect other risky sexual behaviors such as nonuse of condoms and having multiple sexual partners (Adimora, Schoenbach, & Doherty, 2007; Davis et al., 2016). As it

relates to condom use, alcohol has been linked to statistics that suggest that men under the influence are more likely to have resistant condom use behaviors, which could put them at greater risk for contracting HIV and other sexually transmitted infections (Davis et al., 2016). Again, tying drug education into sexual education, and vice versa, could increase awareness among African American males about the dangers of using drugs/alcohol during sexual encounters and decrease their likelihood of engaging in other risky sexual behaviors.

Readiness for Barbershop-Based HIV Prevention

The third research question asked: *What is the level of readiness among southern African American men for barbershop-based HIV risk reduction programs?* Participants in this study were moderately ready for a barbershop-based HIV prevention program (M = 3.78; SD = .75). Using the demographic information (geographic location, age group, education level, income, and marital status) available, it was determined that there was a statistically significant difference in readiness by education level (p = .035). Although follow-up analyses were inconclusive, there was a large gap between those who had some college or technical education (M = 3.65; SD = .77) and those with a graduate or professional degree (M = 3.42; SD = 1.19). This suggested that the men with some college or technical education were more prepared for a barbershop-based HIV prevention program than the men with a graduate or professional degree. This is the first study of its kind to assess readiness for a barbershop-based HIV prevention program quantitatively with an adequate sample size. Former studies used focus groups and interviews to assess readiness (Baker et al., 2012; Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). A mixed methods, qualitative and quantitative, study served as the model for the protocol for developing readiness items, which was used in the instrument for this study (Baker et al., 2012). With limited resources, conclusions about why men with graduate or professional degrees

were the least open to a barbershop-based HIV prevention program cannot be made, and the matter warrants further investigation.

Predictors of Readiness

The fourth research question asked: *Do HIV/*AIDS *knowledge, attitudes, perceived behavioral control, subjective norms, intention to use condoms, and risky sexual behaviors predict readiness for barbershop-based HIV risk reduction programs among southern African American men?* Unlike former studies, this study considered factors related to current sexual behaviors that may influence readiness for such a program. The constructs of the Theory of Planned Behavior, HIV knowledge, and three risky behaviors (non-use or inconsistent use of condoms, having multiple sexual partners, and drug/alcohol use) were entered into a model to determine if these items had an impact on readiness. None of the constructs of the Theory of Planned Behavior or HIV knowledge were significant predictors of readiness for a barbershop-based HIV prevention program ($p = .425$). Perceived behavioral control was, however, a significant predictor of readiness for a barbershop-based HIV prevention program in a stepwise regression ($p = .030$). Unexpectedly, the construct explained only 4.4% of the variance in readiness. While statistically significant, perceived behavioral control may be of very little practical significance for readiness. Nonetheless, perceived behavioral control to use condoms may warrant more exploration to understand its relationship to readiness for a barbershop-based HIV prevention program.

Barbers' Readiness

This study investigated the barbers' opinions on an HIV prevention program in their respective facilities. Most (82.35%) of the barbers were, at minimum, neutral about their readiness to have health information disseminated in their barbershops, but fewer (70.59%) were

willing to participate in a barbershop-based HIV prevention program. Some of the barriers to participating in this type of program included having time, knowledge, customer support, and discomfort discussing the topic in the presence of female clientele. More rich data is needed to contextualize why the barbers answered the probes in the manner they did. This information can be gathered from barbers in a focus group format, as it has been done in a previous study with barbers in Philadelphia (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). Ultimately, the barbers are the gatekeepers to the implementation of a barbershop-based HIV prevention program. Nothing can be accomplished without their support. Building rapport and having the buy-in and support of the barbers must occur before any programs are designed and implemented in their facilities (Lewis, Shain, Quinn, Turner & Moore, 2002).

Implications for Health Education & Promotion

The results of this study have several implications for health education and promotion professionals. First, the results suggest that tailored programs or interventions should be strongly considered to decrease HIV and other STI's in African American males, as they are the group most likely to be impacted within the African American population (CDC, 2014). Three risky sexual behaviors have been identified in this study as targets for intervention: nonuse of condoms, having multiple sexual partners, drug/alcohol use. The results indicated that programs should be designed to tackle condom use based upon income level. It has been suggested that African American men who were lower-middle-income reported inconsistent condom use, which was consistent with the findings of this study (Bowleg, 2004). Other programs should be designed to address those African American males who have multiple sexual partners. In this study, men who were never married, and assumed to be single, were most likely to report having multiple sexual partners, consistent with other studies (Adimora, Schoenbach, & Doherty, 2007;

Adimora et al., 2006; Bowleg, Mingo, & Massie, 2013). Greater efforts should be made to include African American men who have multiple sexual partners as targets of intervention and to promote consistent condom use among these men to reduce the incidence of HIV in this group (Ricks, Geter, Crosby, & Brown, 2014). Furthermore, the attitudes of the men should be the focus of the programs, as attitudes were a significant predictor of having multiple sexual partners in this study. All of these programs will help to address the Healthy People 2020 objectives to decrease the HIV transmission rate in adults and to decrease the new HIV diagnosis rate (USDHHS, 2015).

If appropriate, a barbershop-based HIV prevention program should be designed, implemented, and evaluated specifically for African American men after discussions with barbers. If barbershops are chosen as sites for the delivery of HIV information, an effective model to use would be a community participatory model. Strong relationships should be developed, and the barbers should be involved in all stages of the design, implementation, and development of the programs (Lewis, Shain, Quinn, Turner & Moore, 2002; Wallerstein & Duran, 2006). The feedback barbers provide will be invaluable to the development of such a program and assist with the program's sustainability (Baker et al., 2012; Lewis, Shain, Quinn, Turner & Moore, 2002).

In general, barbershops should not be counted out as sites of recruitment for studies that require African American male participants. Barbershops with predominantly African American clientele served as a unique, but viable, access point to a large cluster of African American men for this study. If health information is to be disseminated, it should be noted that the barbershop has been identified an appropriate venue to deliver health information on a variety of health topics (Luque, Ross, & Gwede, 2014). The results of this study supported that claim and

indicated that the patrons of the barbershops would be open to receiving information about HIV/AIDS in this setting. This was consistent with other studies where the barbershop was either used as a site to gather HIV/STI-related information or to deliver HIV/STI-related content (Baker et al., 2012; Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013; Lewis, Shain, Quinn, Turner & Moore, 2002; Linnan, D'Angelo, & Harrington, 2014; Taylor et al., 2014; Wilson et al., 2014). Health education and promotion professionals should be open to stepping out of traditional settings to recruit participants and deliver content to those who need it most. Though the topic may seem taboo to many, participants may be receptive to the information.

Future Research

The findings of this study warrant further research of the risky sexual behaviors and readiness of African American males to participate in barbershop-based HIV prevention programs. First, the findings of this study indicate that while patrons were open to a barbershop-based HIV prevention, more detailed input from the barbers and barbershop owners was needed. In this study, a brief survey was orally administered to capture the barbers' readiness for a barbershop-based HIV prevention program, their willingness to participate in the program, the perceived barriers to implementation, and the potential benefits of the program. While the feedback was useful, the data was not rich enough to capture why they felt the way they did about certain topics. This warrants a qualitative study with barbers to understand their thoughts on the barbershop as a venue to deliver HIV prevention information. Such a study would also help to fully gauge the barbers' willingness to host such a program in their facilities, similar to the qualitative study with barbers in Philadelphia (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013).

Future research should further explore alcohol and drug use during sexual encounters. Several men in this study reported drug and/or alcohol use during a sexual encounter within the last three months. Future research should distinguish between drug use and alcohol and help understand if and how they are facilitators to engagement in sexual intercourse. Qualitative and quantitative elicitation studies may be helpful in such research among African American men in Alabama.

Additionally, future research should further consider the use of the Theory of Planned Behavior to predict having multiple sexual partners. A review of the literature resulted in no direct linkages between the theory and engagement in this behavior. In this study, attitudes towards condoms was predictive of having multiple sexual partners, but a search of the literature yielded no results in the connection between the two in the context of the Theory of Planned Behavior. Also, while the men with higher incomes were more likely to use condoms inconsistently, this is not the first study to yield this result (Bowleg, 2004). More research should be done to further understand inconsistent condom use among African American men with higher incomes.

Subsequent studies may come in the form of community-based participatory research. If so, it is important to engage the stakeholders and gatekeepers to the communities, the barbers, on all levels (Wallerstein & Duran, 2006). The barbers, for the most part, served as liaisons to the respective communities in this study. They allowed the community members to advocate for what they felt was needed to make the communities healthier by completing the survey. The support of the barbers to allow researchers to collect data should come with some responsibility for the researchers to report the findings of the study back to the communities (Chen, Diaz, Lucas & Rosenthal, 2010; Wilkins, 2011). This should, in turn, place the researchers in a

position to advocate on behalf of the communities in which they partnered to complete the studies (Galer-Unti, Tappe, & Lachemayr, 2004).

Limitations

This study was not exempt from limitations. The men in this study were part of a convenience sample. The men were not representative of all African American men in Alabama; therefore, the findings of this study cannot be generalizable to all African American men in Alabama. Also, the majority of the men in this study were heterosexual, so no conclusions or generalizations can be made about men who have sex with men in Alabama. Notwithstanding, previous studies which accessed African American men exclusively at barbershops to collect data about their sexual behaviors were inclusive of only heterosexual men (Baker et al., 2012; Taylor et al., 2014). A part of the significance of this study was the inclusion of rural African American men. Though there was no significance detected by any of the research questions, the results should be interpreted with caution as the classification of rural or urban was based upon the site of the barbershop attended, and not the patrons' physical addresses.

It should be acknowledged that the participants in this study may have been more educated when compared to a random sample of African American men in Alabama. Nearly two-thirds (65.5%) of the participants reported having, at minimum, some college or technical education. This may be due to the fact that both counties used for data collection in this study were each home to one university, one college, and one community college (Alabama Commission on Higher Education, 2013; The City of Selma Alabama, 2015). The 21.3% of men who reported having a bachelor's degree or higher was consistent with the statewide finding that 23.1 % of all Alabama residents had a bachelor's degree or higher (United States Census Bureau, 2015).

This study was cross-sectional in design. Therefore, no inferences can be made about the causality among the variables, as this data was collected at a single point in time. Nonetheless, cross-sectional studies are useful for detecting the prevalence of behaviors, which was done in this study (Mann, 2003). Though it was assumed that the men in this study answered the questions honestly and accurately, there was the potential for self-report bias. Taking the survey in the presence of others may have introduced the potential for social desirability bias. To minimize the likelihood of social desirability bias, participants were given the option to complete the survey in a private section of the barbershops. Participants were also reminded that the survey was anonymous and the results would be kept confidential.

The instrument, though a compilation of validated and reliable instruments, was not validated specifically for southern African American men prior to the administration of the survey. The reliability analysis of the instrument, however, yielded a Cronbach's alpha of .895, which meets the minimum desired Cronbach's alpha of 0.70 (Bland & Altman, 1997). The study as a whole could have been considered a pilot, and the instrument perceived to be reliable for southern African American men. Instrument modification may be necessary for this instrument to be deemed valid for all southern African American males and used in similar populations with similar research questions.

While the overall instrument reliability was favorable, three subscales (subjective norms, perceived behavioral control, and HIV knowledge) were not. The Cronbach's alphas were .352, .417, and .555 for subjective norms, perceived behavioral control, and HIV knowledge, respectively. Since subjective norms and perceived behavioral control are constructs of the Theory of Planned Behavior, this could have weakened the predictability of the selected behaviors in this study (Ajzen, 1991). It should be noted that all three constructs (attitudes,

subjective norms, and perceived behavioral control) were significantly correlated with intentions in this study.

Study Strengths

There were several strengths to this study. First, the principal investigator offered no incentives for survey completion, which is in contrast to recommendations that incentives should be offered to aid in participation rates (Church, 1993; Singer et al., 1999). Though some were excluded from analysis, 206 men participated in the study, which is the largest sample to date of African American men recruited exclusively from barbershops to participate in a survey about sexual health. Another strength of the study, which may have aided in recruitment, was that the principal investigator was an African American male. The gender and racial status of the PI may have minimized cultural misunderstandings and decreased the likelihood of insider-outsider tensions, as the researcher may have been perceived by the participants as "one of them" (i.e., being a member of their racial or cultural group) (Minkler, 2004; Wallerstein, 1999).

This study was the first, as it relates to barbershop-based HIV prevention literature, to be inclusive of rural participants. It was theory-driven, similar to the study of young African American men in Philadelphia, and it was the first to not have a cap on the maximum age of the participants (Baker et al., 2012; Taylor et al., 2014). Only one study has assessed African American males' readiness for a barbershop-based HIV prevention program, but this is the first study to consider predictors of readiness for such programs (Baker et al., 2012).

The instrument used for this study was a combination of valid and reliable instruments used in other studies. Since this was the first time that the instrument was used with southern African American men, this study could be considered a pilot study. The reliability coefficient of

.895 suggests that the instrument is a reliable instrument to use with southern African American men (Bland & Altman, 1997). Validation procedures can enhance the instrument.

Overall, the results of this study using this instrument suggest that African American males living in Alabama are open to the idea of barbershop-based HIV prevention programs. Though it was not one of the research questions, feedback was gathered from barbers to examine their perceptions about barbershop-based HIV prevention programs. This was only the second study to examine this issue and the first to explore it among southern barbers (Brawner, Baker, Stewart, Davis, Cedarbaum, & Jemmott, 2013). Though the data was not rich enough to answer the "why" questions, it offered a starting point for developing research questions for the barbers for a future study. The desire is to contextualize barbers' positions on barbershop-based HIV prevention programs and their willingness to participate.

Conclusions

This study contributed to the literature by revealing some of the contextual intricacies necessary to help understand the HIV epidemic among African American males in Alabama. This research highlighted the need to address three risky sexual behaviors among African American men to curtail the HIV epidemic, nonuse of condoms, having multiple sexual partners, and drug/alcohol use. To lessen the new cases of HIV, programs may want to focus on men with higher incomes when addressing condom use behaviors, and marital status when addressing having multiple sexual partners. This study suggested that the most salient antecedent of engagement in risky sexual behaviors was attitudes, especially among those who had multiple sexual partners, so an improvement in attitudes towards condoms diminish the rate of infection among African American males.

This study also contributed to the literature by assessing the participants' readiness for barbershop-based HIV prevention programs. The men in this study were moderately ready for such programs, which suggests that the men in the barbershops view the facilities as appropriate places to communicate information about HIV. With this information available, it appears that culturally relevant and tailored barbershop-based HIV prevention programs will be a feasible option to help reduce the new cases of HIV among African American men.

Summary

In this chapter, conclusions, implications for health education and promotion, future research, and limitations and strengths of this study were discussed. Based on the research questions that were made, conclusions were made about the risky sexual behaviors of African American males using the Theory of Planned Behavior as a guide. This led to an understanding of the susceptibility of African American men to HIV. Practical recommendations were provided for reducing African American males' engagement in these risky sexual behaviors and developing barbershop-based HIV prevention programs for the men. The limitations of the study were delineated, as were the strengths. Finally, conclusions of this study were presented.

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APPENDIX A: HIV KNOWLEDGE QUESTIONNAIRE (HIV-KQ-18)

For each statement, please circle "True" (T), "False" (F), or "I don't know" (DK). If you do not know, please do not guess; instead, please circle "DK."

1. Coughing and sneezing DO NOT spread HIV.
2. A person can get HIV by sharing a glass of water with someone who has HIV.
3. Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.*
4. A woman can get HIV if she has anal sex with a man.
5. Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV.
6. All pregnant women infected with HIV will have babies born with AIDS.
7. People who have been infected with HIV quickly show serious signs of being infected.
8. There is a vaccine that can stop adults from getting HIV.
9. People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.*
10. A woman cannot get HIV if she has sex during her period.*
11. There is a female condom that can help decrease a woman's chance of getting HIV.*
12. A natural skin condom works better against HIV than does a latex condom.*
13. A person will NOT get HIV if she or he is taking antibiotics.
14. Having sex with more than one partner can increase a person's chance of being infected with HIV.*
15. Taking a test for HIV one week after having sex will tell a person if she or he has HIV.
16. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.
17. A person can get HIV from oral sex.*
18. Using Vaseline or baby oil with condoms lowers the chance of getting HIV.*

*-Retained or modified for present study.

Source: Carey & Schroder, 2002

APPENDIX B: SEXUAL RISKS SCALE ITEMS RETAINED AND/OR MODIFIED FOR THE PRESENT STUDY

Attitude Items

1. It is a hassle to use condoms.
2. People can get the same pleasure from "safer" sex as from unprotected sex.
3. The proper use of a condom could enhance sexual pleasure
4. Condoms are irritating.
5. I think "safer" sex would get boring fast.
6. "Safer" sex reduces the mental pleasure of sex.
7. The idea of using a condom doesn't appeal to me.
8. Condoms ruin the natural sex act.
9. Generally, I am in favor of using condoms.
10. Condoms interfere with romance.
11. The sensory aspects (smell, touch, etc.) of condoms make them unpleasant.

Norm Items

1. My friends talk a lot about "safer" sex.
2. If a friend knew that I had sex on a date, he/she wouldn't care if I used a condom or not.

Susceptibility Items

1. My sexual experiences do not put me at risk for HIV/AIDS.
2. I may have had sex with someone who was at risk for HIV/AIDS.
3. I am at risk for HIV/AIDS.

Substance Use Items

1. If I had a date, I would probably not drink alcohol or use drugs.

Intention Items

1. If I were going to have sex, I would take precautions to reduce my risk of HIV/AIDS.
2. I intend to follow "safer sex" guidelines within the next year.
3. I would avoid using condoms if at all possible.
4. I am determined to practice "safer" sex.
5. I would try to use a condom when I had sex.

Expectations Items

None

Source: DeHart & Birkimer, 1997

APPENDIX C: INTENT TO CONDOM USE INVENTORY ITEMS RETAINED AND/OR MODIFIED FOR THE PRESENT STUDY

Construct: Attitudes

1. I believe that using condoms to avoid HIV/STD is too much trouble.
2. I believe it would be embarrassing to get a condom.
3. I believe that putting on a condom interrupts the smooth flow of sex.
4. If I were to have sex, it would be insulting if my partner insisted we use a condom.
5. It is important to use a condom every time a person has sex.
6. I believe if I always used a condom with a sex partner, it would greatly reduce my chances of getting HIV/STD.
7. It is important to use condoms correctly.
8. I believe I would go with my partner to get condoms.

Construct: Subjective Norms

a. Most people who are important in my life think I should use a condom every time I have sex.
b. Most people who are important to me disapprove of using a condom.

Construct: Perceived Behavioral Control

1. I would feel comfortable getting a condom.
2. I would not have sex if my partner refused to use a condom.
3. I would feel comfortable getting condoms.

Source: Kanu & Kanu, 2000

APPENDIX D: NCHA CONDOM USE QUESTIONS

1) Within the last 12 months, with how many partners have you had oral sex, vaginal intercourse, or anal intercourse? (If you did not have a sex partner within the last 12 months, please enter 0)
_____Number of Partners

2) Within last 12 months, did you have sexual partner(s) who were:

	No	Yes
Female		
Male		
Transgender		

3) Within the last 30 days, did you have:

	No, have never done this sexual activity	No, have done this sexual activity in the past but not in the last 30 days	Yes
Oral sex			
Vaginal intercourse			
Anal Intercourse			

4) Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier (e.g., male condom, female condom, dam, glove) during:

	N/A, never did this sexual activity	Have not done this sexual activity during the last 30 days	Never	Rarely	Sometimes	Most of the time	Always
Oral sex							
Vaginal intercourse							
Anal Intercourse							

Source: American College Health Association

APPENDIX E: SURVEY FOR STUDY

HIV and Sexual Behavior Survey

This is an anonymous survey. Your identity will not be known. Please DO NOT write your name on the survey.

The purpose of this survey is to explore perceptions about Human Immunodeficiency Virus (HIV) and sexual behaviors in young African American men. The information may also be used to help design a program to address areas where attention may be needed.

If you have any questions about the survey, please let the researcher know. Also, please know that you may skip a question if you do not feel comfortable answering it. You may also stop the survey at any time.

Thank you for your time!

A. Perceptions about HIV and AIDS

STATEMENT:		**Please circle or use an "x" for the response which best describes the statement in your opinion.**		
	EXAMPLE:	True	(False)	Don't Know
1.	A person can get Human Immunodeficiency Virus (HIV) through oral sex with a partner who has HIV or Acquired Immune Deficiency Syndrome (AIDS).	True	False	Don't Know
2.	A person can get HIV through anal sex with a partner who has HIV or AIDS.	True	False	Don't Know
3.	A person can get HIV through deep kissing (or putting the tongue in the mouth of another) from a partner who has HIV or AIDS.	True	False	Don't Know
4.	A man with HIV cannot infect his partner if he pulls out his penis before climaxing or cumming.	True	False	Don't Know
5.	Condoms can help prevent HIV.	True	False	Don't Know
6.	Using Vaseline or baby oil with condoms lowers the chance of getting HIV.	True	False	Don't Know
7.	A natural skin condom works better against HIV than does a latex condom.	True	False	Don't Know
8.	Having sex with more than one partner can increase a person's chance of being infected with HIV.	True	False	Don't Know
9.	A woman cannot get HIV if she has sex during her period.	True	False	Don't Know
10.	There is a female condom that can help decrease a woman's chance of getting HIV.	True	False	Don't Know
11.	Having more than one sexual partner can put people at risk for HIV/AIDS.	True	False	Don't Know
12.	Changing sexual partners frequently can put people at risk for HIV/AIDS.	True	False	Don't Know

B. Attitudes about Condoms

STATEMENT:		**Please circle or use an "x" for the response which indicates how much you agree or disagree with the statement.**				
1.	It is a hassle to use condoms.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.	I believe that using condoms to avoid HIV/(Sexually Transmitted Diseases) STD is too much trouble.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.	Generally, I am in favor of using condoms.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
4.	I believe that putting on a condom interrupts the smooth flow of sex.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5.	If I were to have sex, it would be insulting if my partner insisted we use a condom.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
6.	Condoms cost too much.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
7.	It's embarrassing to get a condom.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
8.	It's embarrassing to purchase condoms.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
9.	I am at risk for HIV/AIDS if I don't use a condom.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
10.	It is important to use condoms correctly.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
11.	I would be willing to go with my partner to get condoms.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
12.	People can get the same pleasure from using condoms during sex as from unprotected sex.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
13.	The proper use of a condom could enhance sexual pleasure.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
14.	Condoms are irritating.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
15.	I think using condoms would get boring fast.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
16.	Using condoms reduces the pleasure of sex.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
17.	The idea of using a condom doesn't appeal to me.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
18.	Condoms ruin the natural sex act.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
19.	Condoms interfere with romance.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
20.	The smell, touch, etc. of condoms make them unpleasant.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

C. Opinions of Others about my Behaviors

STATEMENT:		Please circle or use an "x" for the response which indicates how much you agree or disagree with the statement.				
1.	Most people who are important in my life think I should use a condom every time I have sex.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.	Most people who are important to me talk a lot about "safer" sex (for example, using condoms when having sex, having sex with one partner at a time, not using drugs or drinking alcohol before sex).	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.	If a person who was important to me knew that I had sex on a date, he/she wouldn't care if I had used a condom.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
4.	Most people who are important to me disapprove of my using a condom.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

D. Intentions about Condom Use

STATEMENT:		Please circle or use an "x" for the response which indicates how much you agree or disagree with the statement.				
1.	If I were going to have sex, I would take precautions to reduce my risk of HIV/AIDS **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.	Using condoms is a habit for me. **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.	I intend to use condoms within the next 12 months. **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
4..	I would avoid using condoms if at all possible.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5.	I would try to use a condom when I have sex. **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
6.	I am determined to practice "safer" sex or to use a condom every time I have sex. **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
7.	I would feel comfortable getting a condom. **PBC**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
8.	I would not have sex if my partner refused to use a condom. **PBC**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
9.	If I were going to have sex, I would take precautions to reduce my risk of HIV/AIDS. **INT**	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

E. Sexual Behaviors and Attitudes

STATEMENT:		**Please circle or use an "x" for the response which best describes the statement in your opinion.**			
1.	I have had sex with someone who may have had HIV/AIDS.	Yes	No	Don't Know	Not applicable or never did this sexual activity
2.	My sexual experiences do not put me at risk for HIV/AIDS.	Yes	No	Don't Know	Not applicable or never did this sexual activity
3.	Within the last 3 months, I had oral, vaginal, or anal sexual contact without using a condom.	Yes	No	Don't Know	Not applicable or never did this sexual activity
4.	Within the last 3 months, I had concurrent sexual partners or more than one sexual partner within the same timeframe.	Yes	No	Don't Know	Not applicable or never did this sexual activity
5.	Within the last 3 months, I changed sexual partners frequently.	Yes	No	Don't Know	Not applicable or never did this sexual activity
6.	Within the last 3 months, I had sex during the time I also had alcohol or drugs.	Yes	No	Don't Know	Not applicable or never did this sexual activity
7.	Within the last 3 months, I had sexual partner(s) who were female.	Yes	No	Don't Know	Not applicable or never did this sexual activity
8.	Within the last 3 months, I had sexual partner(s) who were male.	Yes	No	Don't Know	Not applicable or never did this sexual activity
9.	Within the last 3 months, I had sexual partner(s) who were transgender.	Yes	No	Don't Know	Not applicable or never did this sexual activity
10.	Within the last 30 days, I had oral sex.	Yes	No	Don't Know	Not applicable or never did this sexual activity
11.	Within the last 30 days, I had vaginal intercourse.	Yes	No	Don't Know	Not applicable or never did this sexual activity
12.	Within the last 30 days, I had anal intercourse.	Yes	No	Don't Know	Not applicable or never did this sexual activity

13. Within the last 3 months, with how many partners have you had oral sex, vaginal intercourse, or anal intercourse? (If you did not have a sex partner within the last 3 months, please enter 0)
_____Number of Partners

F. Frequency of Sexual Behaviors

BEHAVIOR:		**Please circle or use an "x" for the response which indicates how often you engaged in the behaviors.**					
1.	Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier (e.g., male condom, female condom, dam, glove) during **oral sex**?	Always	Most of the time	Sometimes	Rarely	Never	Not Applicable, Never did this sexual activity
2.	Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier (e.g., male condom, female condom, dam, glove) during **anal sex**?	Always	Most of the time	Sometimes	Rarely	Never	Not Applicable, Never did this sexual activity
3.	Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier (e.g., male condom, female condom, dam, glove) during **vaginal sex**?	Always	Most of the time	Sometimes	Rarely	Never	Not Applicable, Never did this sexual activity

G. Sexual Health Programs in Barbershop Programs

STATEMENT:		**Please circle or use an "x" for the response which indicates how much you agree or disagree with the statement.**				
1.	Barbers could be reliable and trustworthy sources of sexual health information (for example, in talking about HIV prevention, using condoms, and other information).	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.	Barbers could be effective communicators of sexual health information.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.	The barbershop is an appropriate place to provide information about sexual health topics.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
4.	I would feel comfortable with a barber discussing sexual health information with me.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5.	I would be willing to participate in a program that provides HIV prevention information in a barbershop.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
6.	I would participate in a barbershop program that provides HIV prevention information.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
7.	I would participate in a program that provides free condoms in barbershops.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

8.	I would be willing to purchase condoms in barbershops.	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

H. Background Questions

1. Are you African American? ☐ Yes ☐ No

2. What is your age? _____

3. With what sexual orientation do you most identify?

☐ Heterosexual (Straight) ☐ Bisexual ☐ Homosexual (Gay)

☐ Other: _____
(Please specify)

4. What is your county of residence? _____

5. What is your zip code? _ _ _ _ _

6. What is your marital or partnership status?

☐ Never married ☐ In an unmarried relationship ☐ Widowed

☐ Married ☐ Separated ☐ Divorced

7. What is your annual household income?

☐ Less than $20,000 ☐ $21,000 to $30,000 ☐ $31,000 to $40,000 ☐ More than $41,000

8. What is your level of education?

☐ Less than high school

☐ Graduated from high school or earned a GED

☐ Some college or technical school

☐ Bachelor's degree

☐ Graduate or professional degree

APPENDIX F: APPROVED IRB PROTOCOL

Office for Research

Institutional Review Board for the Protection of Human Subjects

THE UNIVERSITY OF ALABAMA RESEARCH

January 22, 2016

Antonio Gardner
Dept. of Health Sciences
College of Human Environmental Sciences
Box 870311

Re: IRB#: 16-OR-026 "Exploring Risky Sexual Behaviors of Southern African American Men"

Dear Mr. Gardner:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on January 21, 2017. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to provide to your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer

358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461
fax (205) 348-7189
toll free (877) 820-3066

APPENDIX G: DESCRIPTIVE TABLE OF RESPONSES TO BARBERSHOP READINESS ITEMS

Item	Response	Valid Percent (n)
Barbers could be reliable and trustworthy sources of health information (for example, in talking about HIV prevention, using condoms, and other information).		
	Strongly Disagree	3.6 (7)
	Disagree	3.6 (7)
	Neutral	16.8 (33)
	Agree	44.7 (88)
	Strongly Agree	31.5 (62)
Barbers could be effective communicators of sexual health information.		
	Strongly Disagree	2.0 (4)
	Disagree	5.1 (10)
	Neutral	19.4 (38)
	Agree	47.4 (93)
	Strongly Agree	26.0 (51)
The barbershop is an appropriate place to provide information about sexual health topics.		
	Strongly Disagree	5.2 (10)
	Disagree	10.8 (21)
	Neutral	22.2 (43)
	Agree	39.7 (77)
	Strongly Agree	22.2 (43)
I would feel comfortable with a barber discussing sexual health information with me.		
	Strongly Disagree	4.1 (8)
	Disagree	11.8 (23)
	Neutral	21.0 (41)
	Agree	40.5 (79)
	Strongly Agree	22.6 (44)

I would be willing to participate in a program that provides HIV prevention information in a barbershop.

Strongly Disagree	3.6 (7)
Disagree	8.1 (16)
Neutral	24.9 (49)
Agree	42.1 (83)
Strongly Agree	21.3 (42)

I would participate in a program that provides HIV prevention information.

Strongly Disagree	3.0 (6)
Disagree	7.1 (14)
Neutral	20.3 (40)
Agree	46.2 (91)
Strongly Agree	23.4 (46)

I would participate in a program that provides free condoms in a barbershop.

Strongly Disagree	2.5 (5)
Disagree	6.1 (12)
Neutral	15.2 (30)
Agree	47.2 (93)
Strongly Agree	28.9 (57)

I would be willing to purchase condoms in a barbershop.

Strongly Disagree	3.1 (6)
Disagree	13.8 (27)
Neutral	20.4 (40)
Agree	39.3 (77)
Strongly Agree	23.5 (46)