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Bahamian Men's Sexual Risks for HIV Infection

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BAHAMIAN MEN'S SEXUAL RISKS FOR HIV INFECTION

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by

Theresa Adderley

2012

To: Dean Ora Lea Strickland
College of Nursing and Health Sciences

This dissertation, written by Theresa Elizabeth Adderley, and entitled Bahamian Men's Sexual Risks for HIV Infection, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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DEDICATION

I dedicate this dissertation to my daughters. Without their patience, understanding, support, and most of all love, the completion of this work would not have been possible.

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ABSTRACT OF THE DISSERTATION

BAHAMIAN MEN'S SEXUAL RISKS FOR HIV INFECTION

by

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Heterosexual adult men have been a neglected population that is at risk for HIV infection. In an era burdened by the devastation caused by HIV, it is alarming that risky sexual behavior continues to be a problem among heterosexuals. Heterosexual sexual behavior has contributed to a growing trend of HIV transmission in the Caribbean where the average prevalence in the adult population is 5%. Despite the availability of condoms and HIV prevention efforts of many Caribbean public health departments to reduce the spread of the disease, there appears to be barriers to safer sex practices. Guided by the theory of planned behavior, a descriptive correlational design was used with 185 Bahamian men ages 18 years and older to (a) examine the relationships among select demographics, masculine ideology, condom attitudes, self-efficacy for condom use, and safer sex behaviors; and (b) identify select predictors of condom use among Bahamian men. Data were collected using four standardized instruments and a demographic questionnaire. The results of this study suggest that masculine ideology, condom attitudes, and condom use self-efficacy are important in explaining 33% variance in safer sex behaviors among Bahamian men. Income ($\beta = -.15$, $p < .01$), masculine ideology ($\beta = -.24$, $p < .01$), condom attitudes, ($\beta = .36$, $p < .01$), and condom use self-efficacy ($\beta =$

.1, $p < .01$) were significantly associated with safer sex behaviors. The empirical knowledge obtained from this study will be used to provide a rationale for nurses and policy makers to design and conduct culturally sensitive interventions with an aim of achieving an increase in safer sex behaviors among Bahamian men.

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CHAPTER I

INTRODUCTION

The HIV epidemic is directly attributable to the sexual behavior of a significant minority of men (Joint United Nations Programme on AIDS [UNAIDS], 2009). Despite the overall stabilization and slight decline in the number of new HIV infections, the sexual behavior of heterosexuals continues to contribute to a growing trend of HIV transmission (UNAIDS, 2010). Heterosexual transmission is the primary mode of HIV transmission in Caribbean and Latin American countries, including The Bahamas. Since the sexual behavior of heterosexuals drives the HIV epidemic, much work is needed to achieve the joint targets of "zero-new infections and zero-AIDS related deaths as outlined in the United Nations Millennium Development Goals for 2015 (UNAIDS, 2010).

The failure of heterosexuals to practice safer sex has been reported in all regions of the world. In 2007, unprotected sex between heterosexual men and women accounted for more than half (55%) of the total of 7,734 newly-identified cases among people in the United Kingdom (Health Protection Agency [HPA], 2008). Similarly, in Switzerland, it was reported that over 51.8% of all newly diagnosed cases of HIV infections were attributable to heterosexual transmission (Muller, et al., 2006). Given the common mode of HIV transmission worldwide, it is not surprising that the primary source of HIV transmission among Latina women diagnosed with AIDS (i.e., 49% of cumulative AIDS cases among the Latino group) was reported to be the result of either injecting drugs, multiple sexual partnerships, and/or inconsistent or no condom usage among heterosexually active Latino men (Centers for Disease Control and Prevention [CDC], 2011).

The first AIDS case was identified in North America in 1981 (Gottlieb et al., 1981). Since then, throughout the global community, the pattern of HIV transmission that began mostly among Caucasian male-to-male sexual contact and through the sharing of contaminated needles has shown a decrease as heterosexual transmission has outpaced these categories (CDC, 2009a). In fact, the CDC (2009a) reports indicated, for example, in the United States, men once represented 82% of AIDS cases among adults and adolescents up until 1994. From that percentage, only 5% were representative of heterosexual transmission. However, by December 2008, heterosexual transmission of HIV accounted for a staggering 33% of cumulative AIDS cases through high-risk sexual contact (CDC, 2009a).

To date, individuals infected through heterosexual contact in the United States account for 31% of annual new HIV infections and 28% of people living with HIV (PLHIV). Moreover, heterosexual contact was identified as the source of 80% of these newly diagnosed infections among HIV infected women (CDC, 2010a). Since the majority of these women reported the source of their infections to be from male sex partners (CDC, 2010a ; Dean, Steele, Satcher, & Nakashima, 2005), it appears that heterosexual mens' sexual behavior has created serious risks for HIV infection in both men and women.

For the Caribbean, sexual behavior of heterosexuals drives the HIV epidemic, and the estimated HIV seroprevalence rate among adults is as high as 4% in some areas (UNAIDS, 2009). National HIV seroprevalence rates were reported to be between 1and 2% in islands such as Barbados, the Dominican Republic, Jamaica and Suriname. Disturbingly, HIV prevalence has already reached pandemic proportions of 2 to 4% in

The Bahamas, Guyana, Haiti, and Trinidad, and Tobago. Haiti has the highest HIV seroprevalence in the Caribbean, with estimates ranging anywhere from 0.8% in the western part of the country to a drastic 11.8% in urban settings (UNAIDS 2009). Nationally, both Haiti and the Dominican Republic report a male to female ratio of HIV infection of 1:1. More disturbing, higher male to female ratios in islands such as Dominica (4:1), Barbados (3:1), Antigua (3:1) and Trinidad (3:1) were reported (UNAIDS, 2009). Most recently, in most countries, the prevalence rate was less than 1% and showed little change or was in decline, although in a few countries it continued to rise. Increases were particularly notable in Barbados and Trinidad and Tobago. The Bahamas remains one of the region's high-prevalence countries, with 3.1% of the adult population being HIV infected (UNAIDS, 2010).

Background

Despite the many public health prevention efforts, the worldwide situation with regard to HIV/AIDS has grown into an international pandemic. Since the HIV virus was discovered 30 years ago, 30 million people have died from the disease, and 0.8% of persons worldwide are reported to be HIV infected (UNAIDS, 2010). Disturbingly, HIV continues to spread at the rate of 7,000 people per day globally, and over 5,700 persons have died from AIDS per day (UNAIDS, 2011). Moreover, during the same period, there were over 31.3 million persons living with HIV/AIDS (PLWHA), or approximately 1 in every 120 persons. While every nation worldwide has been affected by the pandemic, more than 95% of those PLWHA are from developing countries. Of that number, over 70% are living in sub-Saharan Africa (UNAIDS, 2011).

For the Caribbean region, the magnitude of the problem is clear, since the Caribbean has the second highest HIV prevalence worldwide, after Sub-Saharan Africa, and it is estimated that there are more than a quarter of a million PLWHA in the Caribbean (UNAIDS, 2010). Throughout 2010, AIDS-related illnesses remained the leading cause of death among young people aged 25 to 44 living in the Caribbean. Moreover, in 2010, AIDS-related illnesses were the fourth leading cause of death among Caribbean women and the fifth leading cause of death among Caribbean men. Thus, the number of PLWHA in the Caribbean in 2009 was estimated to be 200,000 people (UNAIDS, 2010).

The impact of HIV infection is overwhelming among Bahamians (UNAIDS, 2009). The Bahamas is an archipelago in the Caribbean region that lies in the Atlantic Ocean 500 miles off the eastern coast of Florida. The Islands of The Bahamas extends for over 700 miles roughly parallel in longitude to Cuba, and consists of approximately 700 islands. The population of the 23 inhabited islands ranges from 275,000 to 325,000. More than 85% of the population is of Black African ancestry, and most of the remainder is of European descent (Bahamas Department of Statistics, [BDOS], 2010). The capital of The Bahamas is situated on the island of New Providence where 65% of the population resides. According to UNAIDS (2010), 85% of the HIV cases are found on the island of New Providence.

Heterosexual exposure accounts for approximately 87% of all HIV cases in The Bahamas (UNAIDS, 2011) and thus, The Bahamas has one of the highest rates of HIV infection in the Caribbean. The consequence of high sexual risk behavior among Bahamians is such that the national adult HIV prevalence in The Bahamas is estimated at

3.1%, and currently 12,095 individuals are living with HIV infection. Surveillance data reported in 2010 by The Bahamas' Ministry of Health (MOH) indicated that the cumulative number of reported AIDS cases as of December 2010, was 6,335. Additionally, some 5,760 persons were HIV infected. Young adults engaging in unprotected sexual activity are most at risk for contracting HIV. According to The Bahamas' Ministry of Health (2010), in the 15 - 19 age groups, females infected with AIDS outnumber males 2 to 1. Moreover, the ratio of females to males with new HIV infections is estimated at 3 to1. For persons between the ages of 15 and 49, AIDS has become the leading cause of death for both males (76 per 100,000) and females (53 per 100,000) and is the leading cause of death among males of all ages (UNAIDS, 2009).

The most common mode of HIV transmission among Bahamian heterosexual persons, despite the availability of condoms, in food stores, pharmacies, and service stations, was reported as unprotected sex between men and women. Not surprising, unprotected sex among young adults is prominent and, thus, the pregnancy rate among Bahamian female youth continues to be high. In 2007, the teenage pregnancy rate in The Bahamas was reported at 6%. This high percentage is evidence that a large proportion of youths between the ages of 10 and 19 are engaging in unprotected sex (MOH, 2010) and suggests an urgent need for more sexually transmitted infections (STIs) preventive efforts for Bahamians.

Given the history of the HIV epidemic, early sexual experiences underscored by the inconsistent rate of condom use among heterosexual Bahamian youth suggest that there is a need for more evidenced-based studies and culturally sensitive intervention programs that target both male and female populations. However, there are gaps in the

literature addressing factors that influence and or predict condom use among Bahamian men. Surprisingly, to date, a survey conducted among Bahamian youths in 1998 is the most current and only available national data set that contains information necessary to address preventive efforts. Conducted among Bahamian high school 9th and 11th grade students, results from the youth survey suggested that 41% were sexually experienced. This number included 32% of sexually experienced youth ages 13 - 15 years and 57% sexually experienced youth aged 16 years and older (MOH, 2002).

Through mass media (i.e., television commercials, billboards, radio advertisements) and educational programs (i.e., "*protect ur tings", "no ringy no tingy*") over the past 2 decades, Bahamian officials have made much marked effort to increase knowledge among Bahamians about the spread and control of HIV infection. Despite these efforts, there remains a need for more empirical studies that will create an understanding of heterosexual men's safer sexual practices and factors that influence their practices. This study is, therefore, important since the results can be used to (a) improve the nation's health, (b) decrease negative condom attitudes among Bahamian men who may practice unsafe sexual behaviors such as lack of condom use, (c) increase condom use self-efficacy among Bahamian men, and (d) reduce masculine endorsements that place men at risk for HIV infection. Masculine ideology, condom attitudes, and condom use self-efficacy are important in explaining condom use behavior among Bahamian men.

Significance of the Study

Worldwide, men are known to have sexual control over male condom use (Comas-Diaz, 1998; Lungren, Bezmalinovic, Hirschmann, & Arathoon, 1992). In heterosexual relationships, women are three times as likely to be HIV infected as men (UNAIDS, 2009). According to Neely-Smith and Patsdaughter (2004), Bahamian female youth, like other female youth in the Caribbean (Wood, 2010), tend to have sex with older men for financial gains. Because older men have a longer sexual history coupled with the fact that men tend to dominate sexual intercourse and lack condom use, it seems clear why the rate of HIV continues to escalate in The Bahamas.

Similarly, in a study conducted by Wood (2010) among 184 late-adolescent Jamaican girls (aged 18 -21 years) to examine whether having an age-discordant male sexual partner (> or = 2 years older) was associated with a decrease in condom use at last intercourse. Results from the descriptive and inferential statistics analyses revealed that 58.7% of the sample reported being in a sexual relationship with an older man. Two fifths of the sample reported that their older male partner had multiple sexual partners. Findings further revealed that 42% of late-adolescent girls reported no condom use at last coitus. Both studies suggested that sexual relationships with older male partners are common among Caribbean girls and underscore the significance of research and stronger HIV prevention efforts of Caribbean public health officials.

Health Policy, Nursing Research and Practice

A major issue in health policy, nursing practice, and nursing research is the reduction of heterosexual transmission of HIV through the promotion of consistent condom use (Bowleg, 2004; Seal & Ehrhardt, 2004). This study will contribute to the

understanding of the dynamics of condom use among heterosexuals and has several important implications for public health, nursing practice and nursing research. Moreover, this study has the potential to highlight the devastation of HIV in the Caribbean because it examined the relationships among select demographic variables, masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors; identified select predictors of condom use among Bahamian men; and provided information that may be used to guide the efforts of policy makers, nursing practice, and nursing researchers in the design of culturally appropriate HIV intervention strategies.

A study of this nature is necessary to guide the development of health policies. To date, there is no study reported on sexual risk behaviors in the context of condom use among Bahamian men. The results from this study address the gap in the literature and will be used to assist policy makers and healthcare providers who are concerned with the HIV pandemic. Findings from this study will guide the development of culturally sensitive and appropriate HIV prevention programs that are congruent with Bahamian men's masculine ideology, condom attitudes, and condom use self-efficacy regarding safer sex behaviors.

The Purpose of the Study

Guided by the theory of planned behavior (TPB), a descriptive correlational design was used with 185 Bahamian men aged 18 years and older to (a) examine the relationships among select demographic variables, masculine ideology, condom attitudes, condom use elf-efficacy , and safer sex behaviors; and (b) identify select predictors of condom use among Bahamian men. Data were collected using four instruments and a

demographic questionnaire. The empirical knowledge obtained from this study will be used to provide a rationale for nurses to conduct culturally sensitive and appropriate interventions that may achieve a change in condom use behavior among Bahamian men.

Clearly, much research needs to be conducted with heterosexual men. Heterosexual adult men have been a neglected population that is at risk for HIV infection. Evidence has suggested that heterosexuals' inconsistent condom use plays an important role in the spread of the disease; however, very little is known about the sexual risks factors associated with the male partner (Courtenay-Quirk et al., 2008; Lawoyin, Larsen, Osinowo, & Walker, 2001). Despite this challenge, Oster (2007) concluded that there is still hope in the fight against HIV infection and suggested that because no cure for HIV is currently available; more studies are needed to provide evidence to achieve a change in condom use among heterosexual Bahamian men. The purpose of this study was to (a) demonstrate the relationships among masculine ideology, condom attitudes, and condom use self-efficacy and safer sex behaviors, and (b) identify predictors of safer sex behaviors among Bahamian men.

Theoretical Framework

There is now almost 2.5 decades of documented research on HIV prevention. Since AIDS was first reported in 1981, in the United States, a vast number of behavior change theories and constructs have been used to study HIV and its association with condom use intentions and behaviors (Albarracin, Kumkale, & Johnson, 2004; Colon, Wiatrek & Evans, 2000). Moreover, since 1996, the CDC in collaboration with many partners, accumulated numerous HIV prevention studies (Sogolow, Peersman, Semaan, Strouse, & Lyles, 2002), and more recently, added an additional 69 studies to the

previous 5,000 reports in the Compendium of Evidence-Based HIV Prevention Interventions.

For the study, comprehensive searches of computerized reference databases (i.e., MEDLINE, OVID, PsycINFO, PsycArticles, ProQuest, and CINAHL Plus) were conducted using a combination of the keywords including "*HIV prevention and control*", "*condom use*", "*intervention*", and "*theory*", which produced 893 references. A range of conceptual models and psychological theories that were considered relevant to predict, understand, and examine health-related behaviors, namely, the health belief model (HBM; Becker, 1974, 1978; Rosenstock, 1974); social cognitive theory (SCT; Bandura, 1997); the theory of reasoned action (TRA; Fishbein, 1967) and theory of planned behavior (TPB; Fishbein & Ajzen, 1975); diffusion of innovation, information; motivation, behavioral skills model (IMB; Rogers, 1983); AIDS risk reduction model (ARRM; Catania, Kegeles, & Coates, 1990), and the transtheoretical model of behavior change (TTM; Prochaska & DiClemente, 1983) were all included in the search.

All articles from the search that applied the relevant theories to HIV preventive behaviors were reviewed and critiqued. Among the many entries, the TPB had more research references when compared to the other social cognitive theories, 1,200 of which were noted in the searched academic databases. The health belief model and TRA/TPB were the most widely used theoretical models used to explain and or predict condom use intentions and behaviors in the majority of the studies published since 2001. Of the 893 studies, 97 studies referenced the TRA/TPB and 73 the health belief model.

Abstracts from all 97 TRA/TPB and 73 HBM references were reviewed, and it was determined that 75 of them had the theoretical potential to be relevant and were then

read as full papers. After full review and critique of the studies, it was concluded that the TPB, which is often used to explain and predict health-related behavior, was best suited to explain the relationship among the variables used to predict Bahamian men's sexual risks behaviors for HIV. The study examined select demographic variables (i.e., age, income, and education) masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors among Bahamian men.

The TPB was selected for three primary reasons. First, a meta-analysis of the TPB constructs found the conceptual definitions of attitudes, subjective norms, and perceived behavioral control (PBC) use to be strong predictors of condom use behavior (Albarracin, Johnson, Fishbein, & Muellereile, 2001; Armitage & Conner, 2001; Rivis & Sherran, 2003). Second, all three constructs (i.e., attitudes, subjective norms, and PBC) are relevant to the major variables (i.e., masculine ideology, condom attitudes, condom use self-efficacy) that were examined in the study. Third, when compared to the other social cognitive theoretical models, the TPB has been the most widely and successfully used to (a) inform HIV preventive programs and (b) predict factors associated with safer sex behaviors (CDC, 2009c).

The Theory of Reasoned Action

One of the most commonly used theories for understanding HIV-related sexual risk behavior is the TRA and its extension, the TPB. Developed in 1980 by Ajzen and Fishbein to explain an individual's attitude toward a behavior, the TRA is a general model of predictors of behavior with a goal of determining what factors influence voluntary behavior. Since its development, the TRA has become one of the most influential and widely used psychological theories to explain and predict health

behaviors, inclusive of condom use (Fisher & Fisher, 2000; Noar & Zimmerman, 2005). The model assumes that individuals always consider certain factors (i.e., attitudes, subjective norms) before engaging in a behavior. In the model, the best predictor of a behavior is the individual's intention. Intention is a function of the individual's beliefs (i.e., behavioral and normative).

In the TRA framework, attitudes and subjective norms are the two determinants of intentions that subsequently will determine behavior. For example, because male condom use is a behavior that requires both participation and or cooperation from the male partner in the study, condom attitudes and masculine ideology were the two determinants that subsequently determine behavior (i.e., condom use) and will serve as a source for understanding factors that may influence Bahamian men's condom use (i.e., masculine ideology, condom attitudes, and condom use self-efficacy).

The full TRA model consists of six components (i.e., behavioral beliefs, normative beliefs, attitude, subjective norms, behavioral intention, and behavior). Behavioral beliefs are an individual's views (i.e., positive or negative) about some behavior (i.e., condom use). The function of behavioral beliefs is attitude. Attitude is the component that refers to an individual's positive or negative evaluation of self-performance of the behavior being considered (i.e., favorable or unfavorable evaluation of condom use (Ajzen & Fishbein, 1980). Negative condom use attitudes have been linked with condom use behavior (Albarracin et al., 2001; Pleck, Sonenstein, & Ku, 1993). This study sought to determine the influence of condom attitudes on safer sex behaviors among Bahamian men.

Normative beliefs are influenced by referent individuals or groups. The norm concerning the behavior is referred to as a subjective norm. In general, an individual's response to a referent's influence on behavior is to change by acting in such a way as to obtain approval (Ajzen & Fishbein, 1980). Based on a given behavior (i.e., condom use), an approval or disapproval attitude is then formed by the referent. Next, individuals' perception about what a referent thinks of them using condoms is then weighed (i.e., subjective norms). Normative belief is a determinant of subjective norms.

The more individuals perceive their behavior to be that of a norm (i.e., strongly sanctioned by referents), the more likely they will perform the behavior (Ajzen & Fishbein, 1980). Sexual behavior is socially constructed and is more likely to be influenced by the normative beliefs of everyone in the group (Courtenay, 2000). Masculine ideology refers to an internalized endorsement of culturally defined standards and norms about male behavior (Pleck et al., 1993) and was one of the major variables that may have influenced condom use among Bahamian men.

Behavioral intention and behavior are the final two components of the model. Behavioral intention is an indication of an individual's readiness to perform a given behavior. Although behavioral intentions are an integral part of the TRA, this concept will not be tested in this study. Last, behavior refers to the individual's observable or actual behavior in a given situation (e.g., condom use during intercourse). The weighted sum of the individual's attitudes and subjective norms may equate to a negative or positive attitude and or a high or low endorsement of subjective norms that result in an intention to perform the actual behavior (Ajzen & Fishbein, 1980). Safer sex behavior

was used as the dependent variable in the study to assess condom use behaviors among Bahamian men.

The Theory of Planned Behavior

Ajzen (1985) recognized that behavior appeared to not be 100% voluntary and under an individual's control. This realization resulted in the later development of the TPB. The TPB represents an extension of the TRA and predicts that deliberate behavior is not under the total control of an individual (Ajzen, 1985). Thus, Ajzen added the PBC component as a modification to the TRA to reflect this concept. Meta-analytic reviews of the TPB with measures of PBC found that the component has contributed significantly to the prediction of behavioral intentions and behavior (Ajzen, 1991; Armitage & Conner, 2001; Godin & Kok, 1996).

Perceived behavioral control has been found to be closely related to self-efficacy (Bandura, 1977). In the TPB, self-efficacy and controllability are the two separate components of PBC and are measured by indicators through a hierarchical model of PBC (Ajzen, Brown, & Carvajal, 2004). Condom use self-efficacy is one of the major variables examined in the study to determine its influence on safer sex behaviors among Bahamian men.

Summary of Theoretical Model

Overall, in the TPB, behavior is explained by behavioral intention and is influenced by the three components of the theory (i.e., attitudes, subjective norms, PBC) toward a behavior. These three components are influenced by underlying beliefs (i.e., behavioral, normative, and perceived control). For example, the more favorable the attitude (i.e., positive attitude) and perception of what individuals think others think of

their behavior (i.e., subjective norms), the greater the perceived control that they will be able to perform the behavior (PBC).

Support for the Theory of Planned Behavior

A review and critique of literature suggested that the TPB has successfully been applied to numerous of studies (Albarracin et al. 2001; Boer & Tshilidzi Masamba, 2005; Bosompra, 2001; Chitamun & Finchilescu, 2003; Fekadu & Kraft, 2001; Natan, Danilov, & Evdokimovitz, 2009; Rivis & Sherran, 2003) that support the theory's predictions of HIV-related sexual risk behaviors. Further evidence of the theory application to explain condom use intentions and behavior is noted in a meta-analysis conducted by Albarracin et al. (2001) on 96 data sets. The findings indicated that (a) condom use was related to intentions (weighted mean $r = .45$), (b) intentions were associated with attitudes ($r = .58$) and subjective norms *(*$r = .39$), and (c) attitudes were associated with behavioral beliefs ($r = .56$), and (d) norms were associated with normative beliefs ($r = .46$). Consistent with the TPB, PBC was also related to condom use intentions ($r = .45$). Likewise, supporting evidence was found in a study conducted by Natan et al. (2009) from a convenience sample of 150 Israeli male soldiers ages 19-23. Results suggested that PBC was moderately related to behavioral intentions ($r = .39$) and intentions to use condoms was strongly related to behavior ($r = .64$; $p < .001$).

Intentions and behavior have also been shown to account for a significant proportion of variance in condom use. Up to 55% of variance of condom use was explained by condom use intention and 28% was explained by condom use behavior in several studies (Albarracin et al., 2001; Armitage & Conner, 2001; Bosompra, 2001; Broaddus & Bryan, 2008; Conner & Sparks, 2005; Kok, Hospers, Harterink, & Dezwart,

2007; Molla, Astrom, & Berhane , 2007; Natan et al., 2009). In a meta-analysis of 185 studies conducted before 1998, Armitage and Conner (2001) reported that all three key concept variables (i.e., attitudes, subjective norms, PBC) accounted for between 27% and 39% of the variance in behavior and intentions. Likewise, Natan et al. (2009) reported that attitude, subjective norms, and PBC were significant predictors of condom use and accounted for 34% of the variance in condom use with sexual partners.

Albarracin and colleagues (2001) conducted a path- analysis estimate with the combined average correlations across 96 studies. The PBC accounted for an average 28% of the variance in behavior and 50% of the variance in intentions. Similar results were found among 237 sexually active juvenile detainees; the model of intentions accounted for 35% of the variance in intentions for other users and 31% of the variance in intentions for consistent condom users (Broadus & Bryan, 2008).

Molla et al. (2007) also found that attitude, subjective norms, and PBC accounted for 36% of the variance in intentions to use condoms among 802 young adults in rural Ethiopia. Kok et al. (2007) also provided evidence that the TPB variables explained a significantly high proportion of the variance (55%) in intention to use condoms among a sample of 1,375 men having sex with men(MSM). Similarly, Bosompra's (2001) data supported the model, explaining 33% of the variance in condom use intentions among 201 university students in southern Ghana. These study findings are consistent with previous studies that explained variances noted in intended condom use based on the TPB variables and were found to be as high as 47% (Fedadu & Kraft, 2001). In a study conducted by Fedadu and Kraft (2001) with 354 sexually active Ethiopian females ages 15-19, subjective norms predicted intentions better than did attitude. The findings

provided evidence of the validity of the TPB in the Ethiopian setting. Although attitude in this study failed to add significance, the TPB supported both subjective norms (β = .47) and PBC (β =.34).

Attitudes. Despite the inability of attitudes to add significance in a previous study (Fedadu & Kraft, 2001), the applicability of attitudes have provided mixed results in its predictive power when compared to subjective norms and PBC. A number of other studies on intentions to use condoms seem to have confirmed that the effect of attitude exceeds that of subjective norms and PBC (Armitage & Conner, 2001; Beadnell et al., 2008; Boileau, Rashed, Sylla, & Zunzunegui, 2008; Broaddus & Bryan, 2008; Chitamun & Finchilescu, 2003; Molla et al., 2007; Rivis & Sherran, 2003; Shearer, Hosterman, Gillen, & Lefkowitz, 2005).

Empirical support of the TPB was obtained in a meta-analysis involving 115-144 tests conducted by Armitage and Conner (2001). Results from the comprehensive analysis suggested that the attitude-intention correlation is significantly stronger than the subjective norm-intention correlation. The average attitude intention correlation was reported to be r = .49, whereas the subjective norm-intention average correlation was r =.34. Similarly, in a random sample of 486 heterosexually active men in Seattle-King County, Washington (54% non-Hispanic White, 23% African American, 10% Asian American, 6% Hispanic, 1% Native American, and 4% other), Beadnell et al. (2008) found the basic TRA model to fit the data well. For all three components, although small, intention was related more strongly to attitude (r = .46) than to social norm (r =.42) or self-efficacy (r =.22).

Consistent with findings across a range of behaviors, attitude was generally noted to have a stronger relationship with intention than did norm. Boileau et al. (2008) found among an exploratory (n = 189) and validation samples (n = 342) of young West African men and women living in Bamako that attitudes (β = .55) were a stronger predictor of condom use than perceived norms (β =. 45), and PBC (β =.24). Broaddus and Bryan (2008) found all structural paths for the TPB to be supported among 237 sexually active adolescents in detention facilities in the Denver metropolitan area. Results suggested that for consistent condom users, the effect of attitudes (β = .57) on intentions was higher than the effects of norms (β = .46) and self-efficacy (β =.30). For inconsistent users, attitudes (β = .61) were again found to be a stronger predictor than norms (β = .75) and self-efficacy (β =.47).

Among 100 South African female students, Chitamun and Finchilescu (2003) found both attitudes and subjective norms to predict sexual intention. Attitudes for this group of women emerged as a stronger predictor than subject norms. Similarly, among 802 young adults (n = 599; 76.4% women) in rural Ethiopia, attitudes had the strongest direct effect (β = 0.41, $p < 0.001$), followed in descending order by subjective norms (β = 0.31, $p < 0.001$) and PBC (β = 0.10, $p < 0.01$; Molla et al., 2007). However, among 154 (96 women; 58 men) college students in the northeastern United States, although attitudes emerged as a predictor, it was significant for men (β = −.45, $p < .01$), but not women (β = .07, $p > .10$; Shearer et al., 2005).

Subjective norms. In contrast, some studies that have suggest that subjective norms predict behavioral intentions better than attitudes or PBC (Alarape, Olapegba, & Chovwen, 2008; Boer & Tshilidzi Masamba, 2005; Bosompra, 2001; Bryan, Kagee, &

Broaddus, 2006; Fekadu & Kraft, 2001; Glasman & Albarracin, 2003). In a study conducted by Alarape and colleagues (2008), condom use was examined among 183 Black, Ibadan university male students (ages 15-32; $M = 24$, $SD = 2.8$). The study findings suggested that students with high condom self-efficacy were ($x = 3.85$) more likely to use condoms than those with low self-efficacy; those with high social norms were ($x = 4.00$) more likely than those with low social norms; and those with high affective attitude toward condom use were ($x = 4.08$) more likely than those with low affective attitude to report using condoms.

Boer and Tshilidzi Masamba (2005) assessed the usefulness of the TPB to predict intended condom use among a sample of 201 South African 11th and 12th grade adolescents ($n = 89$, 44% males; $n = 97$, 52% females). Although the level of explained variance was moderate (17%), results indicated that subjective norms ($\beta = .43$) was an independent predictor of condom use intention but attitude ($\beta = .05$) and PBC ($\beta = .22$) were not significantly associated with intention. Subjective norms ($\beta = .45$) of condom use was also a significant predictor of intention in a study conducted by Bosompra (2001) among 201 university students in southern Ghana (62.2% male). While examining the applicability of the TPB to the study of condom use intentions, Bryan et al. (2006) found significant associations for all constructs as expected. However, among the three, the correlation of subjective norms ($r = .29$) had a higher relationship with intentions than either attitude ($r = .12$) or perceived behavioral control ($r = .24$).

Conversely, several studies (Carmack & Lewis-Moss, 2009; Couture, Soto, Akom, Joseph, & Zunzunegui, 2010; Fishbein, Middlestadt, & Trafimow, 1993) found that subjective norms did not predict behavioral intentions better than attitudes and or

PBC. Among 462 African American adolescents ages 12–17 recruited from a Midwestern U.S. city and its surrounding areas (n = 250, 56% females), Carmack and Lewis-Moss (2009) surprisingly found that attitude did not predict intention. However, subjective norms was found to significantly predict intention (β = .223, p = .01), control was also found to predict intention (β = .637, p = .01).

In a study in the Caribbean island of Haiti, Couture et al. (2010) examined factors influencing intention of condom use among the clients (N = 378) of female sex workers (FSWs). Results suggested norms being the most important predictor (OR = 1.75, 95% CI [1.06, 2.88]), followed by PBC OR = 1.34, 95% CI [1.09, 163]) and attitudes (OR = 1.23, 95% CI [1.04, 1.44]. In an earlier study conducted by Fishbein et al. (1993) on condom use conducted in the eastern Caribbean, similar findings emerged: subjective norms had a stronger relationship with condom use than attitudes and self-efficacy to avoid AIDS. The findings provided evidence of the validity of the TPB in the Caribbean setting.

Perceived behavioral control. Studies, however, also found that the PBC construct accounted for significant amounts of variance in intentions between 5% to 12% and significantly predicted condom use over subjective norms and attitude (Cha, Kim, & Patrick, 2008; Fazekas, Senn, & Ledgerwood, 2001; Gredig, Nideroest, & Parpan-Blaser, 2007; Heeren, Jemmott, Mandeya, & Tyler, 2007; Jemmott et al., 2007; Kraft, Rise, Sutton, & Roysamb, 2005; Sánchez-García, & Batista-Foguet, 2008; Schaalma et al. 2009; Smith & Stasson, 2000; Villarruel, Jemmott, Jemmott, & Ronis, 2007).

All TPB components predicted intention of condom use for young men in a study conducted by Cha et al. (2008). The sample consisted of 320 Korean young men and

women ages 18–25 , who were recruited from a university in Seoul (*M* = 21.78 years; *SD* = 2.17). However, PBC (β = .40) was a stronger predictor of condom use intentions than both attitude (β = .34) and norms (β = .28). Only condom efficacy and condom attitude significantly predicted intention of condom use for young women.

Similarly, the TPB supported PBC (β = .35) over attitude (β = .32) and norms (β =.19) in a study conducted by Fazekas et al. (2001) among 187 heterosexual, undergraduate women enrolled in introductory psychology classes. The mean age was 20.9 (*SD* = 4.9). The majority of the participants were White (81.8%). Overall, the TPB predictors accounted for 36% of the variance in condom-use intentions.

Gredig et al. (2007) found that PBC was a significant predictor of intention to use condoms among a sample of heterosexual German men ages 22-65 years. Consistent with past research, PBC was found to be the best predictor and explained 16% of the variance in intention. The magnitude of the relation of PBC varied between the countries in a study conducted by Heeren et al. (2007). In a sample of 254 South African and 160 U.S. university students (*M* = 22 years), with similar ages, findings suggested that self–efficacy was especially important among South African students (*r* = .40) compared with American students (*r* =.11) in predicting intention.

To identify the modifiable determinants of the intention to use a condom, Jemmott et al. (2007) examined 390 Xhosa-speaking South African adolescents. The participants were 6th grade students (*M* = 12.1 years) in public schools in the township of Mdantsane, South Africa. The results suggested PBC (β = .26) followed by attitude (β = .16) were independent predictors of the intention to use condoms, whereas subjective norms was not. In a similar finding, Kraft et al. (2005) explored how TPB components

relate to intention and behavior. PBC was a strong predictor of both (β = .54), followed by attitude (β = .21). Subjective norm was not significant in the prediction of intention.

Sánchez-García and Batista-Foguet (2008) used the TPB to examine factors relating to the intention of condom use among a sample consisting of 664 university students. Results of the study pointed in the same direction as in other research in that perceived behavioral control was found to be the most influential predictor of the intention to use condoms in the group. The values fell within the parameters provided by Armitage et al. (2001), 56% for congruent subjects and 39% for incongruent subjects.

When Schaalma et al. (2009) tested the applicability of the TPB for a study of condom use intentions among 15,782 South African adolescents, they found that consistent with previous studies, that PBC (β = .41) was the strongest predictor, followed by subjective norm (β = .27), then attitude (β = .17). In support of the PBC, the variable that correlated most highly with individuals' intentions to use condoms among 124 undergraduates at Virginia Commonwealth University was PBC ($r = .72$, $p < .01$). The predominately White sample (61%) consisted of 74 females (60%) and 50 males (40%). Condom-use attitudes ($r = .53$, $p < .01$), and subjective norms ($r = .20$, $p < .05$) were both positively related to condom use intentions.

Data were collected from 233 Latino youth (n =112, 48.1% females; n = 121, 51.9% males). Participants mean age was 15.4 years (SD = 1.49), and median grade was 10th. Analyses conducted by Villaruel et al.'s (2007) for male youth suggested that self-efficacy (β = 19) was a significant predictors of condom use intentions, followed by attitudes (β = .18) and subjective norms (β = .11). In contrast, Muñoz-Silva et al. (2007) did not find self-efficacy to be significantly associated with intention in a sample of 319

Portuguese (64% female; 36% male) and 364 Spanish (51% female; 49% male) students. Although higher in Portuguese men, attitude (β = .46) and social norms (β = .57) were both predictors of condom use intentions for both Portuguese and Spaniard (attitude, β = .24; social norms, β = .20) males. However, self-efficacy was not a significant predictor in either group.

Relevance of These Findings to the Present Study

The TPB was selected as the theoretical framework for this research study for several reasons. First, it is clear that the TPB is applicable in understanding the correlates of and predicting condom use in diverse populations and among male and female genders. The literature provides evidence that the relationship among attitudes, subjective norms, intentions and behaviors have been successfully applied to a number of HIV preventive behaviors and among a number of different ethnic groups and communities. Moreover, these results provide support that the concepts of the TPB could be adapted and applied to explain relationship among the major variables of the study with Bahamian men.

A substantive review and critique of the literature assisted with the conclusion that the TPB was more substantially integrative of the constructs selected for the study, namely, masculine ideology, condom attitudes, and condom use self-efficacy. Moreover, the TPB was the only model that recognized that people may not be under complete volitional control of their behaviors (PBC; Ajzen, 1988), when compared to other cognitive theories. Consequently, the other theories examined and critiqued were found to not be able to explain behavior that is specifically out of an individual's control, such as condom use during sexual intercourse.

Next, the TPB was found to explain the relationships between behavior intention and actual behavior. There is much evidence supporting the utility of the TPB in understanding and predicting factors associated with HIV sexual risk intention and behavior. Consistent with the predictions derived from the TPB, attitudes, subjective norms, and perceived behavioral control are all significant predictors of condom use intention and behavior.

Although the literature has supported the view that the TPB has the ability to guide and shape the context of research studies, one prevalent critique remains: the TPB is based on individual level variables and not on an entire community. It is important to mention such lack of accommodation of cultural factors because it is believed that Bahamian men's views are not based on individual thinking alone but also on cultural masculine ideology. The TPB does, however, entail the role of referents in decision making and behaviors. Further, Fishbein (2000) argued that, despite this limitation, attitudes, subjective norms, and PBC are all integral parts of cultural beliefs.

Findings in the literature have provided empirical evidence that attitude, subjective norms, and PBC significantly predict condom use in various places such as Africa, Canada, the Caribbean, Hong Kong, Korea, and South America (Boileau et al., 2008; Fazekas et al., 2001; Fishbein et al., 1993; Godin, Bah, Sow, Minani, & Morin, 2008; Jemmott et al., 2007; Muñoz-Silva et al., 2007) and thus may be suitable to predict safer sex behaviors in Bahamian men.

Conceptual Definitions

According to Vogt (1999), a variable is a concept that can be measured, have more than one value, and change, or vary. The two most frequently mentioned types of

variables in nonexperimental designs are classified in the literature as the predictor or independent variable and the criterion or dependent variable (Fraenkel & Wallen, 2009). The independent variables in this study were masculine ideology, condom attitudes, and condom use self-efficacy. The dependent variable in this study was safer sex behaviors. The definition for each independent and the dependent variable selected for the study is presented below.

Masculine Ideology

Masculine ideology is conceptually defined as an internalized endorsement of culturally defined standards and norms about male behavior of what it is to be a man (Pleck et al., 1993).

Status norms refer to the assertion that men should be the primary provider and protector (Sternberg, 2000)

Toughness norms refer to standards that regulate male behavior to be that of aggressive, fierce, and tough (Pleck et al., 1993).

Antifemininity norms refer to the social construction of the male image that expects men to discard all that is feminine within themselves (e.g., bonding, virginity and passivity) and to avoid activities or interests that can be construed as feminine (Pleck et al., 1993).

Condom Attitudes

Condom attitudes are conceptually defined as feelings, biases, ideas, and convictions about the ability to control one's sexual impulse and or perceived risks of contracting HIV during sexual intercourse (Banaj & Heiphetz, 2010).

Self-control refers to one's feelings, biases, ideas, and convictions of the ability to consistently use condoms with a partner despite sexual impulses (Sacco, Rickman, Thompson, Levine, & Reed 1993).

Perceived risk refers to one's feelings, biases, ideas, and convictions, about contracting HIV and the associated feelings, biases, ideas, and convictions that condoms can help to reduce the transmission of HIV (Sacco et al., 1993).

Condom Use Self-Efficacy

Condom use **s**elf-efficacy is conceptually defined as the appraisal of one's perception the ability to use a condom with a partner's approval and or the capability to convince or persuade a partner to use condoms (Bandura, 2004).

Partner disapproval refers to perceptions of one's ability to use a condom with a partner's approval (Brafford & Beck, 1991).

Assertive refers to one's ability to persuade a partner to use a condom (Brafford & Beck, 1991).

Mechanics refer to putting a condom on self or other; (Brafford & Beck, 1991).

Intoxicants refer to the ability to use condoms while under the influence. (Brafford & Beck, 1991).

Safer Sex Practices

Safer sex practices is conceptually defined as a behavior involving protection of oneself against sexually transmitted diseases by using condoms during intercourse and is used interchangeably with condom use behavior (John-Langba, 2007).

Condom Use

Condom use is conceptually defined as an individual's self-report about frequency of condom use during sexual relations (Brown & Van Hook, 2006; John-Langba, 2007).

Heterosexual

Heterosexual is defined as sexual acts, behavior, and/or attraction to people of the opposite sex (Kitzinger, 2005).

High-Risk Behaviors

High risk behaviors are defined as sexual intercourse without correct and consistent condom use and/or involvement with multiple sexual partners (Henderson, Stoner, George, & Norris, 2007).

Research Questions and Hypotheses

Question 1	Are there relationships among Bahamian men's masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors?
Question 2	What are the individual and combined contributions of select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, condom use self-efficacy, on safer sex behaviors among Bahamian men?
Hypotheses 1	There will be a negative relationship between Bahamian men's masculine ideology and condom attitudes.
Hypotheses 2	There will be a negative relationship between Bahamian men's masculine ideology and condom use self-efficacy.
Hypotheses 3	There will be a negative relationship between Bahamian men's masculine ideology and safer sex behaviors.

Hypotheses 4	There will be a positive relationship between Bahamian men's condom attitudes and safer sex behaviors.
Hypotheses 5	There will be a positive relationship between Bahamian men's condom attitudes and self-efficacy for condom use.
Hypotheses 6	There will be a positive relationship between Bahamian men's condom use self-efficacy and safer sex behaviors.
Hypotheses 7	Select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, and self-efficacy for condom use will predict safer sex behaviors among Bahamian men.

Operationalization of Variables

To establish whether the three variables will be associated with safer sex behaviors, it is necessary to operationalize them. Masculine ideology was measured using 26 items, condom attitudes was measured using 15 items, condom use self efficacy was measured using 28 items, and the dependent variable of safer sex behaviors was measured using 24 items. The items were numbered 1 to 26, 1 to15, 1 to 28 and 1 to 24, respectively. There are 15 demographic questions that are numbered 1 to 15. The participants were requested to respond to each item in the questionnaire. The total score of a given variable was calculated by adding the values of the items.

The masculine ideology variable was assessed using 26 items. The responses to each item had a 5-point Likert scale ranging from 1 (*strongly disagree*) and 5 (*strongly agree*). Condom attitudes were assessed using 15 items. The responses to each item had a 6-point Likert scale ranging from 0 (*strongly disagree*) to 5 (*mostly agree*). Self-efficacy for condom use variable was assessed using 28 items. The responses to each

item had a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly disagree*). Safer sex behaviors variable was treated as an interval dependent variable in this study and was assessed using 24 items. The responses to each item had a 4-point Likert scale ranging from 1 (*never*) to 4 (*always*).

Assumptions and Limitations of the Study

This study was based on the following three assumptions. First, it was assumed that the participants had to read, speak, and write in English; understand the questions in the questionnaire, and respond to them truthfully. Next, it was assumed that the instruments used in the study were reliable and valid. Third, it was assumed that the participants volunteered to take part in the study, met the five inclusion criteria, and were qualified to be representatives of the target population.

This study also had limitations. First, the data concerning sexual activity and condom use were provided by self-report and may have included measurement error resulting from social desirability effects where participants may have given socially desirable responses rather than accurately describing his sexual behavior (Fraenkel & Wallen, 2009). Second, data on safer sex behaviors were collected retrospectively and may have contained recall error (Fraenkel & Wallen, 2009). To reduce recall error, participants were asked about short term sexual practices and not about the type of partner with whom they were engaging in sex nor about frequency of sexual intercourse. Last, results from this study are only generalizable to Caribbean men whose cultural background and ethnic characteristics are similar to that of Bahamians.

Summary

The Caribbean region has the highest regional adult HIV prevalence rate second only to sub-Saharan Africa (UNAIDS, 2011). In the Caribbean, heterosexuals' sexual behavior drives the HIV epidemic, such that the estimated HIV seroprevalence rate among adults is as high as 4% in some areas (UNAIDS, 2011). The heterosexual mode of transmission has been recognized as the primary mode of HIV transmission in Caribbean and Latin American countries, including The Bahamas. This study explored the relationships among Bahamian men's demographic characteristics, masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors and identified predictors of safer sex behaviors among Bahamian men.

CHAPTER II

LITERATURE REVIEW

Automated computerized reference databases (i.e., MEDLINE, OVID, PsycINFO, PsycArticles, ProQuest, Medical Complete, and CINAHL Plus) were searched during the time period of January 2009 and February 2011 for relevant literature examining the three variables (i.e., masculine ideology, condom attitudes, self-efficacy for condom use) and their potential association with condom use. The searches were conducted by crossing the following main key terms: *HIV risks, masculine ideology, self-efficacy, safer sex behaviors, sexual behavior, condom use,* and *condom attitudes.* Manual searches of published studies relevant to masculine ideology, condom attitudes, and condom use self-efficacy as well as the term condom use were also conducted. Next, articles with these key terms were examined and organized according to construct and population. The research examined in this study included samples with similar racial, ethnic, and/or geographic location and heterosexual men and women. Studies were not limited to African Americans in the United States and included HIV prevention studies conducted and evaluated mostly in Africa, the United Kingdom, Latin America and in the Caribbean. Studies were obtained through systematic searches of Caribbean databases available up to February 2011.

Once the final set of articles was identified for this study, each article's reference list was further examined for possible additional relevant articles that may have been applicable to this study. Initial searches resulted in hundreds of abstracts that were examined for relevance. Overall, 262 peer-reviewed research articles were located and closely examined for relevance. As a result, a final set of 136 studies (51%) met the criteria and were included in the literature review for the study.

Despite evidence that the rate of HIV infection among Bahamians is high (UNAIDS, 2010), there remain a limited number of published studies related to HIV prevention and sexual risk behaviors among Bahamian men. A search of electronic databases for published research related to HIV and sexual risk behaviors found studies that concentrated mostly on Bahamian high school students. Perhaps previous studies of a broader range of Bahamian men's sexual risk behaviors and usage of condoms have not been conducted since adult men may not have been as accessible as the adolescent group.

The previous studies for HIV prevention and condom use focused on effects on condom use of an HIV prevention program 36 months post intervention among Bahamian youth (Chen et al., 2010); condom use skills checklist among adolescents (Stanton et al., 2009); randomized control trial of an adolescent HIV prevention program among Bahamian youth (Chen et al., 2009); effects through 24 months of an HIV/AIDS prevention intervention program based on protection motivation theory among preadolescents in The Bahamas (Gong et al., 2009); predictability of sexual perceptions on subsequent behavioral intentions among Bahamian preadolescents (Yu et al., 2008); adolescent Bahamian youth experiencing anal intercourse (Cottrell et al., 2007), and negotiating safer sex practices among Bahamian women (Neely-Smith & Patsdaughter, 2004).

Bahamian men's sexual risks for HIV infection remains underexplored. It was posited that masculine ideology, condom attitudes, and self-efficacy for condom use are linked to sexual behaviors. If Bahamian health and policy makers are to develop effective intervention strategies, these factors should be considered and fully examined among sexually active Bahamians. This study examined select demographic variables

(i.e., age, income, and education), masculine ideology, condom attitudes, self-efficacy for condom use and safer sex behaviors among Bahamian men.

Heterosexual Individuals' Exposure to HIV

Condom use as a behavior that reduces the spread of most sexually transmitted infections (STIs); including HIV has been established (CDC, 2010; Holmes, Levine, & Weaver, 2004). Now more than ever, there is an urgent need to understand heterosexual men's safer sex practices and factors that may influence these practices. The literature provides evidence that heterosexual young adults continue to be the group among whom STI rates are highest (CDC, 2009) and the group that engages in more sexual risk-taking behaviors such as inconsistent or no condom usage (Anderson, 2003; Ekanem, Afolabi, Nuga, & Adebajo, 2005; O'Sullivan, Udell, & Patel, 2006). However, whatever the label, HIV prevention theory, AIDS research, and interventions among heterosexually active men have been limited. Evidence on the "forgotten group" (Exner, Gardos, Seal, & Ehrhardt, 1999) has generally focused on interventions with women as sex partners to encourage use of male condoms (Bowleg et al., 2004; Comas-Diaz, 1998; Figueroa, Ward, Walters, Ashley, & Wilks, 2005).

Heterosexual's sexual risk-taking behaviors can be directly linked to HIV transmission. Three main patterns of behavior that place heterosexual men at greatest risk of contracting HIV are injecting drugs, multiple sexual partnerships, and inconsistent or no condom usage (UNAIDS, 2009). Multiple sexual partnerships and inconsistent condom use are associated with increased risk for HIV exposure (Bombereau & Allen, 2008; Chevannes, 1992; Cobat, Halfen, & Gremy, 2008; East, Jackson, O'Brien, & Peters, 2007; Ministry of Health, Jamaica, 2006; Lee et al., 2005; Organization of Eastern

Caribbean States [OECS], 2006; UNAIDS, 2009; van Veen et al., 2011) and were found to be a concern among heterosexuals. Since the HIV epidemic among heterosexuals can be directly attributable to sexual behavior (i.e. inconsistent condom use), behavior change among heterosexual men is a key issue for reduction in the heterosexual transmission of HIV (UNAIDS, 2010).

Heterosexual HIV transmission from noninjection drug using male sexual partners accounts for the majority of exposure to HIV among women (CDC, 2009b). Recent studies examined the relationship between heterosexual HIV risk and sexual behaviors among Caribbean Islanders and Black West Indian immigrants (Adrien et al., 2010; Collins, Dames, Rochester, Smith, & Springer , 2000; Gerver et al., 2011; Graham, Duff, & Bailey, 2000; Holschneider & Alexander, 2003) and have found that participants who reported being engaged in multi partner sexual relationships also reported not using condoms at all. Results from these studies indicated that heterosexual engaged in high-risk sexual behaviors such as multiple sexual partnerships as well as inconsistent or no condom usage. These high-risk sexual behaviors may be found among heterosexual Bahamians as they are among other West Indian groups.

For example, in a study conducted by Gerver et al. (2011) the researchers compared sexual risk behaviors and sexual health experiences among 266 heterosexual Black Caribbean men living in London and 402 heterosexuals interviewed for a national probability survey. Black Caribbean males clinic attendees reported higher numbers of lifetime sexual partners (adjusted *OR* = 3.27, 95% CI [1.66, 6.42]), two partners in the last year (adjusted *OR* = 5.40, 95% CI [2.64, 11.0]), concurrent partnerships (adjusted *OR* = 3.26, 95% CI [1.61, 6.60]), sex with partner(s) from the Caribbean in the last 5 years

(adjusted *OR* = 7.97, 95% CI [2.42, 26.2]), and previous STI diagnosis in the last 5 years (adjusted *OR* = 16.2, 95% CI [8.04, 32.6]) than the men in the general population.

Both the history of multiple partners and low rates of condom use were found to be cause for concern for heterosexual sexually active Jamaican individuals (Graham et al., 2000). In a study to explore the risk factors involved in the occurrence of sexually transmitted infections (STIs) among female adolescents, a 38-item pretested questionnaire was administered to a purposive sample of 28 Jamaican female adolescents (ages 16-19) who were diagnosed with more than one STI. Results indicated that 54% reported having had three or more partners, and more than half of the sample (62%) reported they seldom used condoms.

Having multiple partnerships is a behavioral risk for HIV and has been reported among Quebec residents of Haitian origin. In a study conducted by Adrien et al. (2010), the researchers found that despite having the highest HIV prevalence of all immigrant groups in the province, male respondents were significantly more likely than female respondents to have had at least one casual heterosexual partner in the past 12 months (39.7% vs. 18.8%, $p < 0.001$) and a significant number of the men (27.3%) who reported never, casually, or rarely using condoms with their regular female partner also did not use a condom at last sexual intercourse with a casual partner.

Similarly, Collins et al. (2000) randomly selected 169 Trinidadian college students ($M = 21$ years; 50.3%, males) to complete a survey designed to examine sexual behaviors. Results revealed that despite a high number of the respondents (66.9%) reporting being sexually active, only 31% of those reporting used condoms consistently and 18.6% never used condoms.

History of multiple partners and low rate of condom use were also found among 1,792 heterosexual African and Caribbean migrant populations in the Netherlands (van Veen et al., 2011). Multivariate analysis revealed that 15% of participants reported concurrent sexual partners in the previous six months, and more than half the participants reported no condom usage. Sexually active heterosexual youth in Haiti were also found to report multiple partnerships and low condom use. Holschneider and Alexander (2003) gathered data from a cross-sectional survey to examine HIV/AIDS prevention-related sexual behaviors among 845 youth (ages 15 -19) living in Haiti. More than half (491, 58%) of the sample reported being sexually active. Multiple logistic regressions showed that only 18% of sexually active adolescents reported always or sometimes using condoms and 27% reported having used a condom the last time they had sex. Over 40% reported having had three or more lifetime sex partners.

Chevannes (1992) was of the belief that sexual involvement with more than one partner is valued in the Caribbean. In fact, a review of the largest Caribbean youth survey suggested a high incidence of multiple partnerships among Caribbean youths. Conducted between 2005 and 2006 among six eastern Caribbean countries, findings suggested some 31 to 46 of the participants' ages 15 to 24 years reported having multiple sexual partners in the last 12 months (OECS, 2006). Cobat and colleagues (2008) reported results from a study with from a probability sample of 3,104 Caribbean men and women ages 18 to 69 years residing in three Caribbean countries: Guadeloupe, Martinique, and Guiana. The researchers conducted interviews by telephone in 2004 and reported that among the men and women who engaged in concurrent partnerships in the past 5 years, 7% reported an STI compared with 4% among those who had two or more

partners. More significantly, respondents who engaged in concurrent partnerships reported a lower level of condom use. Results suggested that although HIV prevention has increased among heterosexuals engaged in multiple sexual partnerships, there is still a lack of consistent condom use in this population.

Vulnerability to HIV infection was observed among individuals who reported multiple partnerships in a report of cumulative AIDS cases between 1982 and 2006 among 11,739 Jamaicans (6783 male, 57.8%; 4956 female, 42.2%). The published report by the Ministry of Health, Jamaica (2006) indicated an overwhelming 73% of the HIV cases were reported to be consequences of multiple sex partnerships. Conversely, studies have shown that heterosexuals do not always find it problematic to use condoms, even with multiple partnerships (Hoffman et al., 2011; Norman, Figueroa, Wedderburn, Byfield, Bourne, & Gebre, 2007). For example, Norman et al. (2007) used data from a national-level reproductive health survey across three time periods (1996, 2000, 2004) among Jamaican male and female youth (ages 15 -24 years) to examine sexual behavior. Results indicated that despite no change in the percentage of youth reporting multiple partnerships, male respondents reported a significant increase in condom use at last sex (67.9% in 2004, $p < 0.01$) when compared to 55.7% in 1996.

Multiple partnerships are not always endorsed among Caribbean heterosexuals. In a study conducted by Hoffman et al. (2011), the researchers interviewed (36 females; 20 males) Caribbean immigrants in Brooklyn, New York. Results revealed that the participants reported an increase in condom and a decrease in multiple partnership involvement since leaving their native Island and migrating to the United States.

The documented literature on risky sexual behaviors such as multiple partnerships among heterosexuals requires that strategies be developed to encourage the heterosexual male population to adopt consistent, effective, and appropriate use of condoms to protect not only themselves but also their female partners. Findings described in the literature have provided empirical evidence that injecting drugs, multiple sexual partnerships, and inconsistent or no condom use are behaviors that place heterosexuals at greatest risk of contracting HIV (UNAIDS, 2009). Findings from the above studies have suggested that multiple sexual partnerships and inconsistent condom use are associated with increased risk for HIV exposure among heterosexuals in various geographic locations. Risky sexual behaviors in the Caribbean have been implicated as a major contributing factor to the spread of HIV among heterosexuals. Condom use is the dependent variable in the present study, and this behavior requires more theory, research, and interventions focused on the issues of gender and HIV risk. However, this variable was never assessed before with Bahamian men.

Condom Use and Other Influences on Safer Sex Behavior

Because HIV infection continues to be a major health threat primarily among men having sex with men (MSM) and heterosexual adults, it is necessary that studies continue to explore the reasons for this trend of events. There is ample evidence on the correlates of heterosexual men's condom use behavior. Condoms have been documented in the literature dating as far back as the 1500s (Langley, 1973). However, not until after HIV was identified have condoms become a popular method for safer sex practices (CDC, 2008). To date, aside from abstinence, the best known method to reduce HIV transmission among sexually active heterosexual individuals is the correct and consistent

use of latex condoms (McNeill, Gilmore, Finger, Lewis, & Schellstede, 2008; National Institute of Allergy and Infectious Diseases , 2001). When condoms are correctly used, the risk of HIV transmission is reduced by approximately 85%, relative to risk when not protected during sexual intercourse (CDC, 2010c; Holmes et al., 2004).

Heterosexuals with low condom use practices are at high risk for HIV infection. In the Caribbean region, an estimated 1.1% of the population ages 15- 49 is living with HIV (UNAIDS, 2009). In fact, heterosexuals who engaged in high-risk sexual behaviors were more likely to report no condom use than those who did not engage in high-risk sexual behaviors (Tavarez, Chun, & Anastario, 2010). Why then are sexually active heterosexual individuals still choosing not to use condoms in the context of protecting themselves against HIV infection? The reasons for aversion to condom use varies among heterosexual individuals include an unrealistic sense of perceived susceptibility to HIV (White & Carr, 2005) and the belief that HIV/AIDS is a disease that only afflicts homosexuals; injection drug users; poor people, uneducated people (Bombereau, 2004; Brooks, Lee, Stover, & Barkley, 2009; Wagner, et al., 2010; White, 2004); and those in third world countries (Keeling & Eames, 2005). The general heterosexual population, for example, in Guadeloupe believes that HIV infection is more prevalent among deviant people, namely sexual vagrants, men who have sex with men (MSM), non-monogamous women, and female sex workers (Bombereau, 2004).

Other studies have suggested that the primary reasons for failure to use condoms ranges from embarrassment at purchase (Bell, 2009; Higuchi & Nakamura, 2010; Moore et al., 2008); a belief that condoms reduce sensitivity and pleasure (Carballo-Diéguez et al., 2011; Crosby, 2005; Randolph, Pinkerton, Bogart, Cecil, & Abramson, 2007); gender

and ethnicity (Essien, Ross, Fernandez-Esquer, & Williams, 2005; Figueroa et al., 2005; Kennedy & Roberts, 2009; Lewis, Melton, Succop, & Rosenthal, 2000); lack of condom self-efficacy (Brodbeck, Vilén, Bachmann, Znoj, & Alsaker, 2010; Gillespie-Johnson, 2008; Hoffman et al., 2008); and age (Davis, Duncan, Turner, & Young, 2001; Dehne & Riedner, 2005; Flood, 2003; Hulton, Cullen, & Khalokho, 2000; Ku, Sonenstein, & Pleck, 1993).

Despite the various reasons for condom use aversion and the lethality of AIDS, heterosexual individuals worldwide have not changed their sexual practices. In many Caribbean countries, resistance to condom use is still high, and condom use is generally not popular (Figueroa et al., 2008; Orisatoki & Oguntibeju, 2010a). In eight Caribbean surveys conducted between 2000 and 2006 with young people ages 15-24 years, only a little more than 50% of the youth in five of the eight surveys reported using condoms during sexual activity (Bombereau & Allen, 2008). Similar available evidence was found in data collected in 2006 from young adults ages 25-29 years in six OECS countries. Likewise, data were collected in 2000 from men ages 25-49 years in Haiti. Findings from the six OECS countries and Haiti suggested that over half of the respondents did not use a condom every time they had sex in the past 12 months (Bombereau & Allen, 2008).

Similar findings were also found among sexually active males living in Madagascar, Ethiopia, and, Mozambique. Each country reported male condom use rates every time they have sexual intercourse as low as 12%, 30%, and 33% respectively. Again, a very low percentage of study population reports for the use of condoms among women in the same age category were also low. The condom use rates for at higher risk females in countries like Madagascar, Mali, and Ethiopia were reported as low as 5%,

14%, and 17% respectively (Federal Ministry of Health [Ethiopia]/National HIV/AIDS Prevention and Control Office, 2006; Institut National de la Statistique Ministère de l'Économie et des Finances Niamey, Niger & Macro International, Inc., 2007).

Research with African and Caribbean male and female samples has indicated numerous reasons why heterosexual persons inconsistently use condoms. In a study conducted by Norman (2003), it was found that most recent sex partner, gender, perceived difficulty in requesting condom use, and actually making requests for condom use were associated with inconsistent condom use. Data from 4293 adults from Kenya, Tanzania, and Trinidad who agreed to participate in the Voluntary Counseling and Testing Efficacy Study were examined employing hierarchical regression modeling. Almost all the sample (81%) reported inconsistent condom use with most recent sex partner.

Partnership type did not appear to influence consistent condom use among a sample of 537 Surinamese, Antillean, and sub-Saharan African heterosexual men and women living in Amsterdam, The Netherlands. In a study that examined the sexual risk behavior and determinants of condom use, Wiggers, de Wit, Gras, Coutinho, and van den Hoek, (2003) concluded that participants neglected to use condoms. In the cross-sectional study, the researchers tested the predictive utility of constructs derived from the health belief model and the TPB and found that inconsistent condom use occurred in a majority (82%) of the primary sexual partnerships and in 25% of casual partnerships.

Likewise, low condom use was also found among a sample of 267 Jamaican women ages 15-49 years. Dale (2002) conducted a study to identify the barriers to

condom use experienced by Caribbean women. A structured interviewer-administered questionnaire was applied, and two focus group discussions were conducted among the women. Findings showed that despite women's high level of knowledge about HIV/AIDS and the effectiveness of condoms, the majority of participants did not use condoms consistently with either their regular or non-regular partners. Not surprisingly, almost half (47%) of the women self-reported a history of STIs.

Attitudes and intentions have been linked to condom use. O'Toole, McConkey, Casson, Goetz-Goldberg, and Yazdani (2007) examined HIV /AIDS knowledge and attitudes and sexual behaviors and intentions to use condoms of 2,000 young people ages 12 – 20 years old living in Guyana. The participants in the study completed self-report questionnaires. Nearly 25% of participants ages 12-14 years and more than 30% of the participants ages 15 years and over reported that they were sexually active. Despite the report of being sexually active, more than half (60%) of the youth reported inconsistent condoms use. Findings indicated that attitudes and intentions toward sexual behavior were significantly influenced by religious teaching as well as by gender and age.

Risky sexual behaviors in the Caribbean have been implicated as a major contributing factor to the spread of HIV among heterosexual individuals. A high prevalence of extramarital affairs and poor use of condom during sexual intercourse were reported among a sample of 80 male taxi drivers ages 28 - 58 years that operate at a major airport in St. Lucia (Orisatoki & Oguntibeju, 2010a). The researchers focused on understanding HIV-related knowledge, sexual behavior and condom use. The results revealed that although 76.7% of the participants were aware of the various modes of transmission and 73.3% were knowledgeable about risks of contracting the infection,

15% of the respondents reported they do not use condom at all because their church does not allow it.

The researchers believed that unfavorable attitudes toward condom use might be related to religious beliefs and may inherently contribute to the spread of HIV infection. The findings indicated that even though the participants were knowledgeable about HIV/AIDS, their condom use habits were negatively impacted mainly by religious beliefs. The study was carried out in only one location in St. Lucia and is limited by paucity of literature regarding knowledge and attitudes on HIV/AIDS among St. Lucian heterosexual individuals and may not be generalizable to other groups of heterosexual persons.

Being coerced and low socioeconomic status were suggested as the primary reasons for failure to use condoms among 204 high-school Dominican females (median age = 16 years). George, Alary, and Otis (2007) conducted a cross-sectional study to examine correlates of sexual activity and inconsistent condom use among high-school Dominican girls. Results from the convenience sample revealed that 41% of girls reported at least one episode of sexual activity. Among sexually active girls, more than half (59%) were inconsistent condom users. The variables associated with inconsistent condom use were coercion (*OR* = 2.8, 95% CI [0.9, 8.2]) and low socioeconomic status (*OR* = 3.3, 95% CI [1.1, 9.6]).

Low educational level has been linked to reduction in regular condom use. Szwarcwald and colleagues (2011) examined HIV-related risky practices among 35,432 Brazilian young men ages 17-20 years using data from behavioral surveillance surveys conducted among military conscripts in Brazil since 1996. Data from the self-reported

questionnaires were analyzed, and the findings showed that regardless of partner type (i.e., fixed or casual), there was a reduction in regular condom use in the period 1999-2002. However, a reduction in consistent condom use was found primarily among men with significantly low educational levels.

Gender inequality has been linked to low condom use. Greater vulnerability was associated with women in a study conducted in Pascom and colleagues (2011). The researchers used a national survey that examined sex inequalities in HIV-related practices among 8,000 Brazilians ages 15 to 64 years old. Logistic regression models were used to investigate the main predictors of consistent condom use. Results showed that men start sexual life earlier than women and have more casual sexual partners. However, women in the study were more likely to use condoms less frequently than men. The researchers concluded that significant differences by gender were seen in all HIV-related risky practices.

Reduced pleasure and sensitivity, unavailability and use of other birth-control methods have been linked to low condom use. For example, Soto (2006) examined factors associated with the lack of condom use among 393 Peruvians (196 females; 197 males). Results for men showed several factors associated with low or no condom use: unavailability, less pleasure and less love in the relationship, loss of romanticism, interference with coitus, and use of other birth-control methods. Although the proportion of women who never used condom was higher than that of their male counterparts, condom use in the past 6 months was low in both sexes.

Similarly, low levels of confidence in convincing their male partners to use condoms were also found among another group of Caribbean women. Using data from

the baseline assessment of a clinic-based intervention designed to increase partner STI notification, Hoffman et al. (2008) compared sexual risk behaviors and beliefs related to using condoms among Black West Indian immigrants and U.S.-born Black peoples. Findings revealed that there were no differences in condom use among the subsamples. However, U.S.-born Black women were more likely to be extremely confident that they could convince their regular partners to use condoms (*OR* = 2.40; 95% CI [1.21, 4.76]) than were Black West Indian women.

Numerous reasons exist in the literature as why heterosexual individuals worldwide are not practicing safer sex behaviors. Orisatoki and Oguntibeju, 2010b found in a study aimed to assess the level of knowledge, the attitudes and misconceptions of medical students at a Caribbean University towards STIs and condom use. Out of 150 questionnaires, 130 were completed, showing a response rate of 87%. The ages of the respondents ranged from 19 to 45 years with a mean age of 26 (SD 5.2) years. The findings indicated that less than four percent (3.8%) of the respondents reported a negative attitude towards condom usage. The main reason for condom usage was to prevent unwanted pregnancy and not to prevent contracting sexually transmitted infections.

Likewise, a high rate of condom use was also found among Haitian Caribbean men. In a cross-sectional study conducted by Couture et al. (2010) to examine factors influencing intention of condom use among 378 clients (*M age* = 24 years) of FSWs in St.-Marc and Gonaives, Haiti, the majority of clients (74%) reported having used condoms with a FSW the last time they had had sexual intercourse. Moreover, a large

majority (81.7%) firmly intended to use condoms during the next sexual encounter with a FSW.

Motivation to protect serodiscordant partners and spouses has been linked to consistent condom use. Allen, Simon, Edwards, and Simeon (2010) selected condom use at last sex for analysis from a broad-ranging cross-sectional survey. The study which was conducted among 394 PLHIV in four Caribbean Islands: Antigua and Barbuda, Grenada, Trinidad and Tobago. Results revealed that condom use appeared to be motivated by protection of uninfected partners and spouses and were positively associated with partners' HIV-uninfected status. A little over half of the respondents (54%) reported using a condom the last time they had sex.

HIV project interventions have been linked to increased condom use. Despite the low level of condom use reported among Caribbean men and women, condom use during the last 12 months increased among a cross-sectional probability sample of African American, Hispanic, Haitian, and Afro-Caribbean unmarried and married men and women ages 18 – 39 years living in Broward County, Florida. Hlaing and Darrow (2006) examined changes in perceptions of HIV risk, abstinence, condom use, and intentions to use condoms for disease protection using computer-assisted telephone interview surveys over a 3 year period (2001-2003). Findings revealed perceptions of increased HIV risk over time for men but not for women, and condom use during the last 12 months increased among sexually active respondents. Participants with exposure to project interventions reported their condom use increased from 53.6% in 2001 to 64.7% in 2002 and 71.6% in 2003

Similarly, Stanton and colleagues (2009) reported significant program effects on condom use and relevant outcome variables 36 months after the theory-based program 'Focus on Youth in the Caribbean' (FOYC) intervention with 1,360 sixth-grade Bahamian youth. Results revealed that participants reported enhanced HIV/AIDS knowledge (effect size D = 0.44, 95% CI [0.43, 0.46]), increased self-efficacy of (D = 0.42, 95% CI [0.30, 0.54]), skills for (D = 0.62, 95% CI [0.56, 0.64]), and intention to use a condom (D = 0.20, 95% CI [0.03, 0.37]).

Research with African and Caribbean male and female samples indicated numerous reasons why heterosexual individuals inconsistently use condoms. Findings from the above studies have documented these reasons and have shown that inconsistent condom use is associated with increased risk for HIV exposure among heterosexual men and women. Risky sexual behaviors in the Caribbean have been implicated as a major contributing factor in the spread of HIV among heterosexual individuals. Condom use is the dependent variable in the study, and this behavior requires more theoretical understanding, research, and interventions focused on the issues of gender and HIV risk. However, this variable has not yet been explored with Bahamian men.

Masculine Ideology and Condom Use

Heterosexual men are found to be in control of choices and application of condoms in relationships (Bowleg et al., 2004; Comas-Diaz, 1998; Figueroa et al., 2005; Lungren, et al., 1992). This control makes it difficult for some women to negotiate condom use with their male partners (Helzner, 2002). The social construction of manliness plays a role in behaviors associated with HIV transmission such as unprotected sex (Lundgren, Gribble, Green, Emrick, & DeMonroy, 2005; Sternberg, 2000). Men are

socialized into believing that certain characteristics define and determine their masculinity. In many Caribbean and Latin American cultures, masculinity is expressed through 'machismo', a trait that traditionally includes aggressive, fierce, and tough characteristics (Chevannes, 1992). Centered on machismo is masculine ideology.

Masculinity is directly linked to HIV transmission (Ojeda, Rosales, & Good, 2008; Vitellone, 2000; Whitehead, 1997) and may have negative consequences for public health. Masculine ideology is the concept of culturally defined standards and norms about male behavior of what it is to be a man (Meade, 2006; Pleck et al., 1993). The assertion that men should be the primary provider and protector (Sternberg, 2000) provides the underpinning of what it is to be a man. Caribbean men's sexual behavior is based in their socialization: their understanding of masculinity.

Studies have documented intentions to use condoms among men who adhered to masculine beliefs. For example, traditional male gender roles have been associated with more sexual partners and less consistent condom use (Pleck et al., 1993), negative attitudes toward condoms (Noar & Morokoff, 2002; Pleck et al., 1993), less consistent condom use, and more intimate partner violence (IPV) (Santana, Raj, Decker, La Marche, & Silverman, 2006).

Numerous studies have also demonstrated links between "traditional" male norms and HIV risk behavior (Bowleg, 2004; Corneille, Tademy, Reid, Belgrave, & Nasim, 2008; Decker et al., 2010; Harrison, O'Sullivan, Hoffman, Dolezal, & Morrell, 2006; Luyt, 2005; Marin, Gomez, Tschann, & Gregorich, 1997; McCreary, Newcomb, & Sadava, 1998; Noar & Morokoff, 2002; Nyanzi, Nyanzi, & Kalina, 2005; Pleck et al., 1993; Seal & Ehrhardt, 2004; Shearer et al., 2005; Spencer, Fegley, Harpalani, & Seaton,

2004; Wood & Jewkes, 2001). These studies have suggested a strong and consistent link among endorsement of masculine ideology and condom use. For instance, a classic study conducted by Pleck et al. (1993) with a sample of 1,069 sexually active Black, White, and Latino youth ages 15 to 19 found that male adolescents with high levels of masculine ideology were more likely to endorse high-risk sexual activity and to inconsistently use condoms. Likewise, researchers found in a sample of 1,600 Latino men that masculine ideology was negatively associated with condom use (Marin et al., 1997).

More recently, in a study conducted by Harrison and colleagues (2006) with 101 male and 199 female young adults (ages 18-24) in northern KwaZulu/Natal province, the association between gender role in the context of masculinity and HIV risk outcomes suggested similar results. The men in the study with more egalitarian relationship norms were more likely to engage in consistent condom use than men with less egalitarian relationship norms ($OR = 0.11$, $p < 0.05$; 95% CI [0.015, 0.792]). Noar and Morokoff (2002) also found that traditionally prescribed gender role in the context of masculine ideology was associated with condom use attitude. In a study with 312 university students (89% White; ages 18-20 years), findings suggested that higher endorsement of masculine ideology was related to more negative condom use attitude and accounted for 10% of the variance in condom attitude. Likewise, in a large sample of 46,961 sexually active Indian men, Decker and colleagues (2010) found that traditional masculine ideologies supported the men's high-risk sexual behaviors as a gendered form of HIV risk.

Findings from qualitative studies also lend support to an understanding of masculine ideology and condom use. Recruited from a local university and several community organizations in the southeastern metropolitan area of the United States, 28 African American men who have sex with women (ages 18-35 years) shared their sex behaviors and HIV risks. The researchers discussed several topics relevant to safer and risky sexual behavior with the participants. During interviews or focus groups, it was concluded that the reasons African American men did or did not engage in condom use during sexual interactions were embedded in the cultural norms and expectations of African American men (Corneille et al., 2008).

Reviews of a sexual behavior surveys conducted across the region have shown that many Caribbean men acknowledge feeling social pressure to engage in behaviors that were perceived to be masculine, without regard for the possible negative consequences. Median ages at first sex for Caribbean youth were reported in the early-to-mid teens or, in the case of some studies with boys, at even younger ages, and age at first sexual intercourse was reported to be lower among boys than girls (Kurtz, Douglas, & Lugo, 2005). Social pressure and culturally specific influences and beliefs have been found to influence condom behaviors that were perceived to be masculine. Early sexual initiation continues to be a major factor that drives the HIV epidemic. Boys early sexual initiation is used to "prove" they are not homosexual. Findings from Figueroa and colleagues (2008) reported that while condom use has grown significantly among Jamaican adolescents, 75% of males and more than half (65%) of the females reported they did not use a condom during their first experience of sexual intercourse.

Guided by an ecological extension of the TPB, Hutchinson and colleagues (2007) conducted a qualitative study with 67 Jamaicans (41, adolescents; 16, parent; 10 teachers) to address factors that significantly influence behavioral, normative, and control beliefs related to sexual behaviors that contribute to risk for HIV. The participants participated in 2- to 3-hour focus group discussions and completed brief survey questionnaires that identified cultural factors at the individual, family, and societal levels. Results from the study revealed that peer pressure was identified as a major factor in adolescents' decision to have sex. Male participants reported pressure to have sex from both male peers and female partners. The boys also reported that they had sex to follow the crowd, have fun, and have pleasure, and nearly all of their peers were having sex. It was estimated that 65% of 12- to 13-year-old boys were having sex, as were 90% of 15- to 16-year-olds and 100% of 17- to 18-year-olds. Despite knowing where to obtain condoms, Jamaican adolescents reported that only about half of their peers were using condoms. The results of this study suggest high rates of high-risk sexual behaviors (i.e., early age of sexual initiation, multiple partnerships, and inconsistent condom use).

Relationships between intentions to use condoms among men who adhered to machismo beliefs were found among immigrant Dutch Caribbean young adults. A combined quantitative and qualitative study was conducted by Kocken, van Dorst, and Schaalma (2006) with a random sample of 1,012 Dutch Antilleans ages 15 to 50 years which was drawn from the Rotterdam registrar's office. The purpose of the study was to assess the association between the intention to use condoms with a new sexual partner and a perceived taboo on discussing sex, beliefs about sex education, and machismo beliefs on gender and power relationships. A total of 346 persons participated, (56.4%

female). Kocken and colleagues (2006) used a structured, self-completed questionnaire to gather the data from participants. Surprisingly, the number of participants who reported sexual contacts with multiple partners (8.9%) was lower than expected. Another positive finding was that 66.2% of the participants intended to use condoms with a new sexual partner in the future.

Additional findings indicated that the intention to use condoms was primarily related to several factors: perceived norms toward condom use; a perceived taboo on discussing sex; machismo beliefs concerning the role of females; and gender, age and educational level. Respondents who were less likely to have beliefs favoring machismo were more inclined to use condoms, than respondents who had the opinion that women had a secondary role in intimate relationships (*OR* = 1.86, 95% CI [1.08, 3.21]). Participants who perceived a taboo regarding talking about sexuality were more likely to use condoms than their counterparts who did not perceive such a taboo (*OR* = 0.50, 95% CI [0.29, 0.87]).

The results of the study suggested that cultural factors such as traditional machismo beliefs (i.e. role of females in heterosexual partner relationships), in combination with strong perceived norms toward condom use, may influence intention to use condoms. One limitation of the study was that it did not have balanced representation of men and women, and women were overrepresented in the age group of 35–50 years. Generalizations of the results of the study should take into account the limited number of men in the study.

There is a growing belief among Bahamians that Bahamian men's ideology, attitudes, and cultural characteristics have not changed since emancipation. Widely

known throughout Bahamian communities is the male endorsement of multiple partnerships and sex for procreation (i.e., sex without condoms). For other young Caribbean men, it is necessary to "prove" ones heterosexual orientation and virility to others. In a cross-sectional study, Harvey, Beckman, Browner, and Sherman (2002) examined unsafe sexual practices and social attitudes among 1,498 Jamaican men and women (n = 754, 50.3%, males; n = 744, 49.7%, females). The target population was persons ages 15 to 49. Findings revealed that men who responded *yes* to violence against women are more likely themselves to have multiple sexual partners and less likely to use condoms consistently. Participants were also more likely to have forced a partner to have sex within the last year. Multivariate regression analysis shows that men who responded *yes* to IPV are likely to be young, less educated, and living in urban areas. One limitation of the study was that it was conducted with a sample of both male and female heterosexuals and not just men. Therefore, generalizing the findings should be done with caution.

Heterosexual men have been found to be in control of choices and application of condoms in relationships, which makes it difficult for some women to negotiate condom use with their male partners. For example, Figueroa and colleagues (2005) assessed the high-risk health behaviors among 1,401 adult Jamaicans (473, men; 928 women; ages 15-49 years). Data revealed that significantly more men (28.0%) than women (11.7%) reported ever having a STI (OR = 2.93, CI [2.16, 3.97]); more than one sexual partner in the past year (49.1% vs. 11.4%, OR = 4.31, CI [3.22, 5.76]), and usually used a condom during sexual intercourse (55.3% vs. 40.5%, OR = 1.3, CI [1.11, 1.68]).

Despite the findings that the link between masculine ideology and condom use was consistent across ethnic groups, gender, and sexual orientation, a limited number of studies (Kaufman, Shefer, Crawford, Simbayi, & Kalichman, 2008; Malebranche, Fields, Bryant, & Harper, 2009) did not find support that masculine ideology might be related to HIV risk behavior. In a qualitative exploration conducted by Malebranche and colleagues (2009) in Atlanta, Georgia, the researchers could not conclude that there was a connection between masculine ideology and condom use or sexual risk behaviors among a sample of 29 Black self-identified MSM.

Similar outcomes were found in a study conducted by Kaufman and colleagues (2008) with 309 men (10% married; 30% completed high school) receiving STI diagnostic and treatment services from a city clinic in Cape Town, South Africa. The men in the study's endorsement of masculinity were actually related to lower HIV risk behavior. However, Kaufman and colleagues restructured the risk index to further investigate the negative relationship to include only the exposure-linked risk; findings after the restructuring suggest that masculine ideology was indeed significantly related to HIV risk behavior.

Studies have found relationships between intentions to use condoms and men's adherence to masculine beliefs. The findings from these studies have indicated that the relationship of HIV risk behavior and masculine ideology is not only significant among men in the United States, but also among Caribbean Islanders and African-Americans. These studies have suggested that heterosexual individuals typically are at risk for HIV, and women are most commonly vulnerable to HIV infection. This behavior demonstrates the need for more theory, research, and interventions focused on the issues of gender and

HIV risk. However, these relationships were never tested before with Bahamian men. Masculine ideology is one of the major independent variables in the study. It was hypothesized that masculine ideology would significantly contribute to condom use in Bahamian men.

Condom Attitudes

Attitudinal measures can be highly predictive of behavior. For example, condom attitudes have been linked with condom use (Albarracin et al., 2001; Pleck et al., 1993). Substantive literature has documented fairly consistent associations between condom-related attitudes and reported condom use in diverse populations of men and women. Men and women with negative attitudes toward condom use were found to be less likely to use condoms during sexual intercourse (Ackerman & de Klerk, 2002; Brooks et al., 2009; Charnigo, Crosby, & Troutman, 2010; Harvey & Henderson, 2006; Noar & Morokoff, 2002; Pallonen, Timpson, Williams, & Ross, 2009; Peltzer, 2001; Peterson, Bakeman, Blackshear, & Stokes, 2003; Pisani, Dadun, Sucahya, Kamil, & Jazan, 2004; Stulhofer, Graham, Bozicevic, Kufrin, & Ajdukovic, 2007; Pleck & O'Donnell, 2001; Pulerwitz, Amaro, DeJong, Gortmaker, & Rudd, 2002).

Consistent with these findings, Pulerwitz and colleagues (2002) conducted a study with 388 female patients at an urban community health clinic in Massachusetts and found that respondents' attitudes toward condom use were positively associated with safer sex behaviors ($p < 0.01$). Similarly, in a study conducted by Pisani and colleagues (2004) with Indonesian men, findings suggested that negative attitudes toward condoms, particularly among the clients of commercial FSW, reported condom use by FSWs during only 1% of sexual acts. A study conducted by Harvey and Henderson (2006) with 191

Latino men at a Los Angeles site for a couples-based intervention designed to reduce the risk of unintended pregnancy and STIs found that more positive attitudes toward condoms was significantly associated with both condom use ($OR = 1.62$, $p < 0.05$) and condom use intentions ($OR = 4.24$, $p < 0.001$).

To investigate the phenomenon further, Stulhofer and colleagues (2007) examined the predictors of condom use and consistent condom use and found positive attitudes toward condom use to be an important predictor of condom use at last intercourse and consistent condom use among a sample of 1,093 (574 females; 519 males; ages 18-24) Croatian individuals. Young adults in the study who held negative attitudes toward condom use were less likely than those who held positive attitudes to have used a condom at last intercourse ($p = 0.5$). Similarly, attitudes was found to be associated with condom use in a study conducted by Charnigo and colleagues (2010) in a study of 296 African American men (ages 18–29 years) attending a public STI clinic in the southern United States. Associations between condom use at last intercourse and attitudes were found to be significant ($p = .021$). Pallonen and colleagues (2009) used nine statements to assess negative aspects of condom use. As in previous studies, attitudes were significantly related (F (8, 702) = 3.64, $p < .001$) to condom use among sexual active, heterosexual, African-American crack cocaine smokers ($N = 366$).

Although study results repeatedly suggested that negative condom attitudes are associated with inconsistent condom use, findings on the relationship between condom use attitudes and condom use have not always been consistent. A few studies have found no significant relationship between attitudes and condom use (Glasman & Albarracin, 2003; Muñoz-Silva, Sanchez-Garcia, Nunes, & Martins, 2007) while in one study, (Chun,

& Anastario, 2010) the researchers found no significant relationship between attitude and condom use. For example, in a study conducted by Muñoz-Silva et al. (2007), attitude was found to be the better predictor of condom-use intention for young women but not for men in a sample of Portuguese (n = 290) and Spanish (n = 313) university students (57% female; 43% male; M = 21.6 years). Similarly, for the men in a sample of 101 heterosexual high-risk Argentine adults, attitudes toward condom use were not related to past condom use. Glasman and Albarracin (2003) concluded that the participants may have changed their current attitudes related to an earlier behavior.

Negative condom attitudes have not been always been found to be linked with inconsistent condom use. The relationship between condom use attitudes and condom use have been found to be inconsistent in a sample of sexually active male military personnel stationed along border-crossing zones in the Dominican Republic and Haiti. Taking an applied scientific approach, Tavarez and colleagues (2010) conducted a study with a subsample of 470 sexually active male military personnel to better inform prevention programming with military personnel in the region about condom use attitudes. Drawn from a stratified systematic sample and with the use of a verbally administered questionnaire, the researchers found that participants showed a relatively high level of HIV/AIDS-related knowledge and a moderate level of negative attitudes toward condoms. Findings indicated that although knowledge and attitudes were important in HIV prevention programming, they were not associated with sexual risk behaviors.

Despite few studies that have explored condom use attitudes and risky sexual practices in developing countries, findings from studies have generally indicated a

significant relationship between condom attitudes and consistent condom use among men and women living in North America, Europe, and Latin America. However, no studies had been conducted on condom use attitudes in The Bahamas. It is therefore hypothesized that Bahamian men's condom use attitudes will predict their safer sex behaviors.

Condom Use Self-Efficacy

Condom use self-efficacy is a concept believed to influence condom use. According to the literature, condom use self-efficacy plays a vital role in condom use behavior in a variety of populations (Cha et al., 2008; Heeren et al., 2007; Smith & Stasson, 2000). Findings from numerous studies have suggested that condom use self-efficacy is a significant predictor of safer sex behaviors in both men and women and that condom self-efficacy significantly correlates with safer sex behaviors (Fernandez-Esquer, Atkinson, Diamond, Useche, & Mendiola, 2004; Kaneko, 2007; Naar-King et al., 2006; Peltzer, 2001; Sayles et al., 2006) among adolescents (Shafii, Stovel, & Holmes, 2004), members of various ethnic groups (Alarape et al., 2008; DiIorio, Dudley, Soet, Watkins, & Maibach, 2000; Farmer & Meston, 2008; Gabler, Kropp, Silvera, & Lavack, 2004; Thato, Charron-Prochownik, Dorn, Albrecht, & Stone, 2003; Wang et al., 2009; White, 2004), heterosexual African American individuals (Pallonen et al., 2009), and women (Kaneko, 2007; Mausbach, Semple, Strathdee, & Patterson, 2009; Sterk, Klein, & Elifson, 2003).

Research has established that safer sex is important for protection against HIV (Sexually Transmitted Diseases Tool Kit, 2006). Kanekar and Sharma (2009) employed Bandura's (1997) SCT to facilitate a cross-section design study of what predicts safer sex

behaviors among 150 (*M* , 22.17; *SD* 4.58) African American college students (*n* = 69 males, 46% ; *n* = 81 females 54%). The SCT explains human behavior as a triadic reciprocal relationship between behavior, environmental factors, and personal factors. Psychometrically valid and reliable self-report scales were developed for constructs of the SCT that included situational perceptions for safer sex, self-efficacy toward safer sex, self-efficacy in overcoming barriers toward safer sex, expectations about safer sex (i.e., outcome expectations and outcome expectancies), self-control about safer sex, and safer sex behaviors. For modeling the predictors of safer sex, stepwise multiple regressions was used.

The results showed that of all the predicator variables for condom use in the study, self-efficacy is the most powerful predictor in SCT and is directly associated with safer sex behaviors. Self-efficacy toward safer sex explained 14.7% of variance in the dependent variable. When asked about the number of sexual partners in the last year, over two fifths (*n* = 69, 45.9 %,) said that they had just one partner, while 30 (19.9%) had two partners, 18 (12.3%) had three partners, 8 (5.5%) had four partners, 5 (3.4%) had five partners, and 12 (8.3%) had more than six partners. A limitation of this study was the random selection of participants which may have introduced sampling bias; hence, the results have limited generalizability in terms of different settings and in other groups of students and or African Americans.

In a study by Pelizer (2000), self-efficacy was found to be an important determinant of condom use among both 146 female and 60 male first year psychology students (*M* age = 20.9 years; ages 17-34 years). Findings suggested that major self-efficacy items of condom use were positively related to condom use intentions among the

participants. Likewise, among a sample of 3,519 male and 3,890 females South African youth (ages 15–24 years), Sayles and colleagues (2006) assessed several factors associated with self-efficacy for condom use. Findings suggested that not using condoms by males (*OR* = 0.51, 95% CI [0.39, 0.67]) and not using condoms by females (*OR* = 0.61, 95% CI [0.50, .76]) were associated with low condom use self-efficacy.

In contrast, Fernandez-Esquer and colleagues (2004) found condom use self-efficacy to be linked to condom use with differences in self-efficacy for condom use by gender ($F = 4.56$ $df = 1$, $p = .03$). In a sample of 152 Latino male ($n = 50$) and female (n =102) participants, the women in the study reported higher condom use self-efficacy scores compared to men. For example when asked, "*Can you stop and look for a condom if you or your partner is already sexually aroused*?"Regression results indicate that education and gender influenced condom use self-efficacy, which in turn influenced condom use in the last sexual encounter and with the primary sexual partner.

Regardless of gender, condom use self-efficacy has consistently been linked to condom use in a variety of populations and ethnicities. For example, in an ethnically diverse sample of 665 university students (ages 16–26 years; 72% Caucasian, 16% Hispanic, 12% Asian American), Farmer and Meston (2006) found that although men had significantly higher condom use self efficacy scores than women ($F[5, 664] = 32.22$, p <.007), the level of self-efficacy was associated with condom use for both male and female participants. As predicted, DiIorio and colleagues (2000) found that self-efficacy was directly related to condom use behaviors in a diverse sample of 1,380 ($M = 20.6$; 50% White; 42.5% Black; 3.9% Asian American; 2.9% Hispanic; 63% female) college students. Similarly, in a study conducted by Thato et al. (2003) to identify predictors of

condom use among 425 vocational students ages 18 to 22 years in Thailand, condom use self-efficacy was found to be significantly associated with safer sex behaviors.

Likewise, self-efficacy for condom use was the only variable with a significant relationship with the frequency of condom use ($\beta = .11$, $p < 0.01$) in a study conducted by White (2004) with a sample of Jamaicans (1,208 males, 961 females; ages 15- 19). As expected, Mausbach et al. (2009) found that increases in self-efficacy significantly predicted increased condom use ($p = 0.008$) in 924 Mexican FSW 18 years and older. In a study with 183 Black African male university students ($M = 24.8$ years; 82.5% single), Alarape et al. (2008) also found that condom self-efficacy played a significant role ($p < .05$) in reported condom use among students who reported using condom.

Condom use self-efficacy plays a vital role in condom use behavior among people from the Caribbean. Magee, Small, Frederic, Joseph, and Kershaw (2006) conducted a study with expectant fathers in Haiti. The researchers used semi-structured interviews in order to describe the prevalence of condom use and identify HIV risk behaviors. Results showed that men who had medium ($OR = 22.50$, $p < 0.001$) and high sexual communication ($OR = 36.51$, $p < 0.001$) were more likely to use condoms. Findings also showed that high decision making power ($OR = 62.52$, $p < 0.001$) was a predictor of multiple sex partners for the expectant fathers in the sample.

Similarly, safer sex negotiation and communication about sexual risks with partners has been linked to sexual risk reduction. For example, Bertens, Schaalma Wolfers, and van derBorne (2008) examined safer sex and negotiation behavior and the correlates of negotiation with partners in 128 women of Surinamese and Dutch Antillean descent in the Netherlands. The key findings were that half (50%) of the participants had

negotiated sexual risk reduction with their partner, yet only 40% of the women who negotiated safer sex actually claimed practicing safe sex. Participants defined safer sex with steady partners primarily as negotiated safety and monogamy and safer sex with casual partners primarily as condom use. Increased condom use with non-primary partners was also associated with higher HIV prevention self-efficacy among Caribbean women residing in the Bronx, New York. In this study, Dixon, Saul, and Peters (2010) examined correlates of HIV sexual behavior among 187 Puerto Rican women and found that increased condom use with primary partners was associated with higher levels of mastery and HIV prevention self-efficacy.

In contrast, some correlational studies have reported unexpected findings that condom use self-efficacy was not positively associated with condom use frequency (Braithwaite & Thomas, 2001; Naar-King, Rongkavilit, Wang, & Wright, 2008). Using self-efficacy as a predictor of condom use, Braithwaite and Thomas (2001) found no relationship between self-efficacy for condom use and condom use. The researchers also explored the relationships between self-efficacy and risk behaviors and found a significant negative correlation between sexual risk taking and condom self-efficacy (r = -0.35, $p < 0.001$) for 70 African American women enrolled in a university in Washington, DC. However, further findings from the study suggested that no significant relationship between sexual risk behavior and condom self-efficacy was found in the sample of 62 Caribbean-born women attending university in Jamaica. Using path analysis, Naar-King et al. (2008) found that self-efficacy in HIV+ youth fully mediated the relationship between readiness to change and condom use. In contrast, self-efficacy in HIV+ Thai youth (ages 17-25 years old) was not related to condom use.

The relationship between condom use self-efficacy and condom use behavior underscores the need to determine the factors that may affect safer sex behaviors in Bahamian men. Although few studies have found mixed gender differences in condom self-efficacy, traditional and cultural norms place men in control over the application of condoms (Harvey et al., 2002). Therefore, it is important to examine the role condom use self-efficacy plays in safer sex behaviors among Bahamian men. The study hypothesized that condom use self-efficacy would significantly predict safer sex behaviors among Bahamian men.

Lack of assertiveness that heterosexual individuals need in order to insist on using condoms to protect themselves was found to be a reason for not using condoms among a sample of 1,290 Swiss heterosexual ages 16-24 years. Brodbeck et al. (2010) examined the longitudinal effects of condom self-efficacy on sexual risk behavior using a series of hierarchical logistic regression analyses. Results indicated clear gender-specific effects showing that condom self-efficacy predicted sexual risk behavior up to 5 subsequent years for women in the sample.

Sociodemographic Characteristics

Age, income and education are important factors that influence sexual behaviors. Studies regarding factors associated with condom use are abundant in the literature, and findings have suggested that these factors are either indirectly or directly relate to condom use behaviors. However, findings conflict in the literature regarding the association between age and condom use. For instance, inconsistent condom use has been negatively linked to young and older sexually active adults (Chaudhuri & Ray, 2004; Kocken et al., 2006; Lawoyin, 2004; Pelzer, 2001; Semple, Patterson, & Grant,

2004; Wiggers et al., 2003). Income was also found to be a determinant of consistent condom use (Janepanish, Dancy, & Park, 2010; Week, 2009).

While one study revealed that older participants reported higher levels of condom use in both males and females than their younger counterparts (Ku et al., 1993), another study conducted by Davis et al. (2001) found that older males and females reported lower levels of condom use than their younger counterparts. Thato and colleagues (2003) conducted a study with a sample of 25 heterosexually active Thai vocational male and female students and found that age was not related to condom use. Younger age has been linked to increased risk for the transmission of HIV (Parrado & Flippen, 2005). Manlove, Terry-Humen, & Ikramullah (2006), analyzed data from the 2002 National Survey of Family and found that the age of a young men at the time of his first sexual experience may place them at risk for the transmission of HIV. Findings indicated that young man who reported that they were less likely to use condoms were more than two times more likely to have had their first sexual experience before the age of 16 compared to men whose first sexual experience happened at 16 years of age or later.

Older adults also participate in unsafe sex practices (Araujo, Mohr, & McKinlay, 2004; Cooperman, Arnsten, & Klein, 2007; Jung & Schill, 2004). Cooperman and colleagues (2007) found that men were putting themselves or others at risk for HIV infection. The study sample, ages 49 years or older, reported having unprotected sex or multiple partners and also participating in the exchange of sex for money or drugs. Similarly, older Thai heterosexual men have been reported to be at increased risk for HIV infection. Janepanish and colleagues (2010) used a cross-sectional descriptive research design with a convenience sample of 400 heterosexual Thai men (ages 20-39; *M* age =

28.71 years; *SD* = 6.33) to explore determinants of consistent condom use. Findings revealed that while 39.5% reported using condoms consistently, 23% reported using condoms inconsistently, and 37.5% reported never using condoms.

Level of education can impact health literacy (Brooks et al., 2009; Kapiga, Lwihula, Shao, & Hunter, 1995; Lugoe et al., 1996; Organista, Organista, Bola, Garcia de Alba, & Castillo-Moran, 2000; White, 2004). However, findings in the literature have suggested that education is inconsistently related to condom use behavior. In a study conducted by Brooks et al. (2009) with Latino male gang members ages 18-26 years living in Los Angeles, California, participants with a high school education or more were 0.38 times less likely to report unprotected vaginal intercourse than gang members with less than high school education. Also, education was the only demographic variable that was significantly related to condom use (*OR* = 1.25, 95% CI [1.07, 1.46]) in a sample of Jamaican youth (1208 male; 961 female) ages 15-19 years (White, 2004).

Conversely, using face to face interviews, Duncan and colleagues (2010) conducted a study to estimate HIV prevalence in 450 FSWs in Jamaica and to identify risk factors associated with HIV infection. Results revealed that a majority (70%) of the participants who were older and less educated reported less condom use with clients. Consistent condom use is effective against HIV transmission. Findings from these studies have suggested that interventions to increase consistent condom use should focus on enhancing intention to use condoms consistently by promoting positive condom attitudes, subjective norms about consistent condom use, and PBC of consistent condom use. In this study, age, income, and education were predictor variables used to predict condom use among Bahamian men. The results from the study may provide information

to policy makers and nurses on culturally sensitive and gender specific HIV prevention strategies for Bahamian men in an effort to prevent the spread of HIV in The Bahamas.

Conceptual Framework

There are few studies that have addressed factors associated with condom use in the context of HIV in heterosexual Caribbean men. However, the literature has provided substantial support for applying the TPB to sexual risk behavior among males in other countries (Beadnell et al., 2008; Boileau et al., 2008; Cha et al., 2008; Godin et al., 2008; Gredig et al., 2007; Mashegoane, Moalusi, Peltzer, & Ngoepe, 2002; Muñoz-Silva et al., 2007) and may also be suitable to be adapted and applied to understand and predict safer sex behaviors in Bahamian men.

The TPB model provides an integrative approach to understanding and predicting specific health behaviors by incorporating several theoretical constructs. The key components of the TPB postulate that attitude, subjective norms and PBC determine a behavior. In the application of this theory to a study on condom use and Bahamian men, masculine ideology, condom use attitude, and condom use self-efficacy may be indirectly or directly associated with condom use among Bahamian men (Ajzen et al., 2004).

For example, Figure 1 illustrates a conceptualization that an endorsement of masculine ideology (i.e., subjective norms) will increase the effects of the perceived importance for Bahamian men to think, feel, and behave in accordance with culturally defined standards for male behavior (i.e., normative beliefs). These attitudes may have a negative effect on condom use. However, a high level of self-efficacy for condom use (i.e., PBC) will increase the effects of one's ability to use a condom oneself (i.e., control belief) resulting in a positive effect on condom use, whereas attitude toward condom use

(i.e., attitudes) will decrease the influence toward condom use (i.e., behavioral belief) and result in a negative effect on condom use.

Select demographic characteristics (i.e., age, income, education) were also major variables in the study model and were used as background factors to predict condom use behavior among Bahamian men. Therefore, older age, financially security, and higher education would have an influence on condom use and result in a positive effect on condom use in Bahamian men.

All three of the components of the TPB (i.e., attitudes, subjective norms, and PBC) were used to guide the study on condom use behavior. Two of the components of the TPB (i.e., negative attitude and low levels of subjective norms) have been found to be associated with less condom use, whereas high levels of self-efficacy have been found to be positively related to condom use. Analyses have generally support the validity of attitudes, subjective norms and PBC for predicting condom use among Bahamian. This study (a) examined the relationships among select demographics, masculine ideology; condom attitudes, and condom use self-efficacy, and (b) identified the predictors of condom use among Bahamian men.

Guided by the TPB and in an effort to prevent the spread of HIV in The Bahamas, the broad goal of this study was to examine determinants of HIV risks in Bahamian men and offer implications for the development of culturally sensitive and gender specific HIV prevention interventions for Bahamian men. The specific aims of the study were to (a) examine the relationships among select demographics, masculine ideology, condom attitudes, self-efficacy and condom use, (b) identify select predictors of condom use among Bahamian men, and (c) inform healthcare providers and policy makers about

factors that may influence Bahamian men's condom use as a sexual risk for HIV infection.

Summary

The Caribbean region has an HIV/AIDS epidemic of the highest magnitude outside of sub-Saharan Africa. Factors such as r power-relationship inequalities, acceptance of masculine ideologies, and cultural belief systems place Caribbean women at increased vulnerability to HIV infection. These influences have a great impact on sexual behavior, and because the HIV epidemic is largely heterosexually transmitted, it is important to understand the role that Bahamian men's beliefs and behaviors play in the continuing HIV risk of young men and women in The Bahamas.

Despite the availability of condoms, inconsistent or low condom use among heterosexual adults is a major health concern all over the world; thus, the prevalence of HIV remains high among heterosexual individuals (UNAIDS, 2009). Therefore, understanding condom use behavior is important to identify what factors actually influence the phenomenon taking into account cultural and other significant differences among the heterosexual adult Bahamian male population.

The literature on condom use in general is abundant. However, a review of the literature on heterosexuals' sexual risk behavior revealed that studies of condom use have been mostly descriptive and focused on group differences (e.g., religious teaching, gender, and age). Therefore, much is now known about the correlates of condom use, and much less is known about the reasons for the observed group differences. A possible conceptual framework can be provided by considering factors that are likely to be an

integral part in explaining condom use including masculine ideology, condom attitudes, and self-efficacy for condom use.

To date, there have been no published studies regarding condom use behavior among Bahamian men making it difficult to draw conclusions. Despite this limitation, a review of literature addressing males in other countries suggested that condom use during sexual intercourse is much more likely to increase when attitudes toward condom use and or self-efficacy in condom use increase and masculine ideology decreases.

Researchers have suggested that more studies are needed to examine factors that may influence condom use and to provide culturally sensitive information to guide policymakers' decisions in the design of interventions that may enhance condom use among heterosexual men. –No study has examined condom use among Bahamian men, particularly using masculine ideology, condom attitudes, and self-efficacy as a framework. Therefore, this study guided by the TPB framework was conducted to gain a better understanding of condom use behavior among Bahamian men provides a foundation for the development of culturally appropriate interventions that can be used to increase condom attitudes and negotiation skills as well as reduce health disparities among Caribbean women.

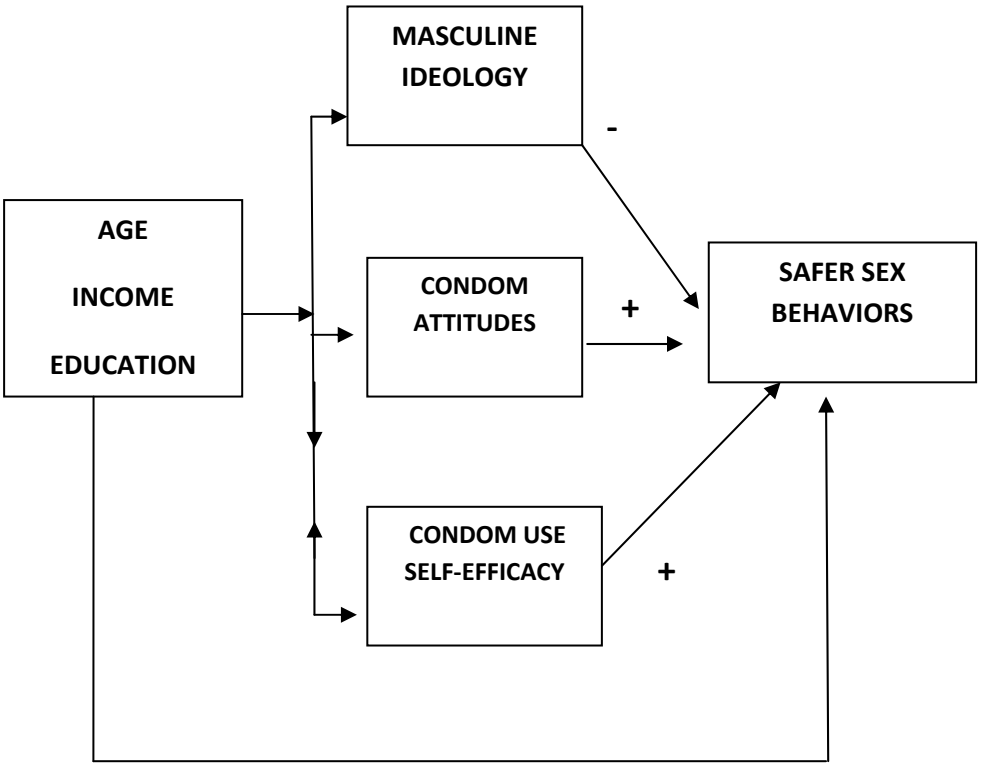

Figure 1. *The TPB adapted by Adderley (2011) to depict relationships among the variables that may predict safer sex behaviors*

CHAPTER III

METHODOLOGY

The methodological approaches for this study are presented in this chapter and include: (a) research design; (b) setting and sampling; (c) data collection procedure; (d) instruments and (e) data analyses.

Research Design

This cross-sectional descriptive correlational study examined the relationships among select demographics, masculine ideology condom attitudes, condom use self-efficacy, and safer sex behaviors among Bahamian men.

Setting and Sampling

The study was conducted in the city of Nassau on the island of New Providence, The Bahamas. The Bahamas, an archipelago, is considered part of the Caribbean region and lies in the Atlantic Ocean 500 miles off the eastern coast of Florida. Nassau, which is located in New Providence, is the only city in The Bahamas other than Freeport on Grand Bahama Island which is comprised of multiple developed communities.

Convenience sampling techniques were used to recruit a sample of Bahamian men ages 18 years and older living on New Providence Island. The participants all volunteered to take part in the study and were selected by five inclusion criteria including that they (a) self-identified as Bahamian; (b) had the ability to read, speak, and write in English; (c) were age 18 years or older; (d) resided in The Bahamas for at least 10 years; and (e) were sexually active within the last 3 months. Individuals who were excluded from participation in the study were (a) not Bahamian by ethnicity; (b) unable to read, speak, or write English; (c) female gender; (d) self-identified as homosexual or bisexual; or (5) sexually abstinent within the last 3 months.

Sample size

Not only is an adequate sample size important for economical reasons, which is especially true for researchers on a limited budget, it is necessary to obtain statistical significance for real effects that exist (Faul, Erdfelder, Buchner, & Lang, 2009a). The three classes of parameters for statistical power analyses identified by Faul et al. (2009a) include (a) Type I error or the significance level of the test; (b) the size(s) of the sample(s) used for the test; and (c) an effect size parameter that defines the hypothesis (i.e., indexes the degree of deviation from the null hypotheses in the underlying population). Generally, in social research, statistical power should be greater than 0.8 in value (Trochim, 2006).

In this study, to be both statistically significant (Faul et al., 2009a) and economically sound, a medium effect size of .30 for correlations and 0.15 for multiple regression following Cohen's conventions with power set at .80 were used to determine a sample size. According to Cohen (1988), an effect size is a measure of the strength of the relationship between variables in a population and is interpreted as small, medium, or large. In providing guidelines, researchers pinpointed that statistical significance is a function of sample size and, therefore, the larger the sample size, the more likely significant results will be found in a study (Cohen, 1988). Using these calculations, a sample of 64 was determined for one-tailed bivariate correlations (*r*), whereas a sample size of 98 was calculated for multiple regression analysis with six predictor variables.

Although the sample size for a two-sided test would be larger than that for a one-sided test, the smaller sample size was used because the hypotheses are directional, there is prior theory that suggests strong positive and negative relationships among masculine

ideology, condom use attitude, and condom use self-efficacy and evidence for favorable internal reliability were found in all four of the study measures (MRNS, CAS, CUSES, SSBQ). For this study, additional participants were recruited making the number more than sufficient to obtain the required power for the correlational and hierarchical multiple regression analyses.

Data Collection Procedure

For this study, the initial selection and training of six research assistants (RAs) began on March 18, 2011 and concluded April 27, 2011. The use of six assistants allowed for the assistants to be available to canvass a variety of places in groups of at least two to be protective of each other. Because data collectors may affect different groups differently (Fraenkel & Wallen, 2009), the RAs for this study were selected based their similarities with regard to racial and national origin characteristics to those of the participants. Both male and female nursing students were used to recruit participants for the study. The use of male and female students to collect data from a male participant ensured that a given characteristic of a data collector could not affect study variables (Fraenkel & Wallen, 2009). Moreover, the use of culturally appropriate RAs with similar racial and cultural backgrounds to those of participants can reduce the participants' distrust of the research; therefore, participants may respond more honestly than they otherwise might (Moher, Schulz, & Altman, 2001). The researcher did not collect data allowing the researcher more time to observe the data collection procedure and ensure adherence to ethical guidelines.

The RAs selected were level 3 nursing students, because students at that level were enrolled in the senior year in the School of Nursing, would have experience with

community-based work, and completed a nursing research course and project in the Spring semester of 2011. Furthermore, nursing students dressed in uniform are generally viewed as nonthreatening and nonjudgmental by the community (Wieck, 2000). Data collection training was conducted by the researcher and included how to (a) be courteous, but persistent, (b) administer questionnaires, and (c) address issues concerning incentives and research benefits. In addition, the RAs were required to complete the online 3 hour National Institute of Health Human Subject Training course (National Institutes of Health (NIH, 2012).

Research assistants were not paid for working on this study. Self-administered questionnaires were distributed to participants throughout the community by the RAs in places where Bahamian men were conveniently located. Self-reported data were collected using the following steps. First, the researcher met and explained the purpose of the research to potential location owners and/or managers to request approval for the study to be conducted at the selected location (e.g., barbershops, and churches) in the form of a written letter of cooperation (see Appendix A). Approximately 20 flyers (see Appendix B) were left with the owners, leaders, and managers and were posted in strategic locations in the facility. Study flyers and letters requesting permission to gain entre to sites included the purpose, dates, times, and locations of the study. Additionally, a letter was sent to the Administrative Assistant at the College of The Bahamas (COB) School of Nursing to request the use of a classroom to accommodate appointment times scheduled between 11a.m. and 2 p.m. and then again from 4 p.m. to 6 p.m. (Appendix C). However, this location was not used because the minimum sample size was obtained, and no participant requested an appointment at the school.

Protection of Human Subjects

A letter was sent to the ethics and research committee from the Public Hospitals Authority (PHA) to advise them of the study and a letter recognizing this study and its initiative from the PHA research coordinator was obtained prior to the start of the study to alert health policy makers and health care practitioners about the study (see Appendix D). Additionally, the researcher sought and obtained approval from the Florida International University's (FIU) Institutional Review Board for the Protection of Human Subjects (IRB) prior to recruitment efforts. Immediately following the approval of the study from the FIU IRB, 17th of October 2011 the trained RAs began recruiting participants.

Potential benefits. This study had no known direct benefits to participants. The study examined the relationships among masculine ideology, self-efficacy for condom use, and attitudes toward condom use. Therefore, there was the possibility for health care providers and policy makers to gain more knowledge about condom use among Bahamian men. The study contributes to health policy, nursing research, and nursing practice and will be valuable for participants, nurses, other healthcare providers, and policy makers concerned with HIV prevention program. Last, this study will be beneficial in that it provides a rationale for nursing practice to conduct culturally sensitive interventions that will used to achieve a change in condom use behavior among Bahamian men.

Participants were not paid for participating in this research study. However, participants were given a $5.00 coupon redeemable at a local barber and beauty supply store as an incentive for participation in the study. Participants were informed that

participation was voluntary and that there would be no penalty for a refusal to participate or a decision to stop while completing the self-administered questionnaire.

Potential risks. It was determined that this study would not pose greater than minimal risk, discomforts, or inconveniences. For this study, there was little potential for disclosure of extremely sensitive information (e.g., HIV status, forced first intercourse). No individual expressed any discomfort or a need for a counselor. However, a list of available counselors was readily available from the researcher (see Appendix E). This study was in compliance with established standards by the Federal Health and Human Resources' Office of Human Research Protection (OHRP) and the Federal Code of Regulations - upheld and enforced by the FIU IRB. After approval from the FIU IRB, data collection began (see Appendix F). Data collection began the third week of October and lasted for a period of 3 weeks.

Each participant was informed verbally and with a cover letter before he started answering the questionnaire that if any personal discomfort should occur during data collection that requires him to seek future counseling, a list with names of local counselors would be made available by the assistant and that the list will be provided regardless of whether he finishes or discontinues a questionnaire. However, the participant was also informed that he was responsible for any cost payable to the counselor. Each participant was informed that participation was voluntary and that he could withdraw from the study at anytime.

In anticipation of potential feelings of discomfort and/or embarrassment during the administration of the questionnaire, a field test of the instruments was conducted among a selected group of Bahamian males similar to those for whom the battery of

instruments was designed prior to the research. This technique was useful in assessing for sensitive questions that could cause embarrassment and discomfort during the study (Fraenkel & Wallen, 2009) as well as clarity and ease of reading. Last, RAs were instructed not do any counseling; however, they were trained to identify signs of discomfort and to respond by providing a contact list of counselors to the participant, before the he leaves the research area.

Informed consent. Each RA was provided with a script of the purpose of the study and was instructed to use this script as the guideline for informing the participants about the study (see Appendix G). After the participant verbally gave consent (see Appendix H) and confirmed his willingness to participate and understanding of the purpose of the study, he was informed by the RA that his participation was voluntary and that he could withdraw from the study at any time. The participant was provided with a cover letter (see Appendix I) explaining the study. The cover letter was attached to the questionnaire and included (a) the description and purpose of the study, (b) the rights of confidentiality and voluntary participation, (c) anonymity of the data, (d) possible risks and benefits, (e) directions for completing the questionnaire, (f) researcher contact information, (g) information about the voucher incentive for their time for participation in the study, and (h) the plans for dissemination of study findings.

Next, time was allotted for questions in case there were some issues needing clarification. Participants were encouraged and given the opportunity to ask questions. All questions were addressed prior to the start of responding on the questionnaire after which the self-administered, paper-pen questionnaires were handed out to each participant. The purpose of the study was explained as a study to assess Bahamian men's

health practices. Each participant was informed that by not placing his personal identifiers such as names or contact information on the self- questionnaires, he would remain anonymous and that only the principal investigator (PI) and RAs will have access to the questionnaires. Last, the information on how to contact the PI for additional questions or concerns was provided as well as the instructions for completing the questionnaire. Participants were asked to carefully follow the printed instructions, read each question thoroughly, and answer each question completely and honestly.

Confidentiality of data. To protect participants, men who volunteer to complete the questionnaire were informed not to write their names or any other identifiable information anywhere on the questionnaires. Moreover, there was no place for the participants to write their names or contact information on the self-administered questionnaires. Participants were further informed that since the questionnaires were collected and coded without any identifiers, responses could not be linked to them. Participants were instructed to place the completed questionnaire in an envelope, sealed, and dropped into a closed box which was available at all sites and provided by the RAs. The box was only opened after five or more sealed envelopes were inside, and only the PI and RAs had access to the questionnaires. The sealed envelopes were secured in a locked filing cabinet in the PI's private office at the College of The Bahamas' School of Nursing, until data entry.

A number of steps were necessary before analysis began. Data entry, a process within the preanalysis phase of the research process, began and continued until the end of data collection. The PI reviewed the RAs' data collection, coding, and entry techniques throughout the study to ensure confidentiality of the data. Moreover, no identifiable data

were stored on data collection forms, files, and/or computers and laptops. Rather, to enhance confidentiality and reduce the chances of lost data, the PI saved the data on and safely stored four back-up files, including one hard copy of the data file in a locked office and filing cabinet. This location was selected since the PI was aware of all people who had access to her office and possibly to the data.

Final analyzed results were to be reported and published in aggregate and, therefore, it was be impossible to track the responses back to any individual participant. A copy of the final report would be submitted to FIU College of Nursing and Health Sciences (CNHS) within six weeks of the dissertation defense. Any published paper(s) or abstracts of papers read at conferences out of the research findings would be submitted within 8 weeks after the conference to The COB School of Nursing.

Dissemination of results. Results from this study will be used to expand nursing knowledge about safer sex behaviors in the prevention of HIV and examine associations that might have implications for the development of culturally sensitive intervention strategies in the context of preventing the spread of HIV. Honest and open weaknesses, problems, and limitations as well as the strengths of a study are important for the advancement in the select field (Simera, Altman, Moher, Schulz, & Hoey, 2008). Written (e.g., dissertation, articles, reports) and oral (e.g., posters presentations, interviews) methods would be used to accurately report findings of the study to selected audiences, regardless of whether findings were consistent with expectations.

Dissemination timeline and implementation of reporting varies greatly for research findings (Simera et al., 2008). For this correlational study, the time frame set will be between six to nine months for processing and dissemination of results after

analysis. A copy of the final report of the research findings and any published paper(s) or abstracts of papers read at conferences will be submitted to FIU CNHS and COB School of Nursing Department. Additionally, the investigator will disseminate the findings from this study in (a) a peer-reviewed journal; (b) local newspapers; and (c) local, regional and international conferences, seminars, or workshops.

Although the main target audience for research results is nurses, other professional colleagues in the health arena (e.g., policymakers, lay people) will also benefit from the identification of the determinants that may put Bahamian men at risk for HIV infection. Conclusions will include the generalizability of the findings to other similar populations (i.e. Caribbean Islanders, and men of Black African descent).

The RAs recruited men 18 years and older in areas that were most likely and conveniently to have male participants present. Men were recruited, who were, waiting during the day, in groups in public areas (i.e., barbershops, basketball courts or participating in group activities (i.e., church, attending men's meetings). Potential participants were recruited during the day time during business hours of operation and verbally informed and provided with a cover letter about the purpose of the study attached to the questionnaire study. The response to requesting volunteers to participate in the study was overly received, at basketball courts, workplaces and churches, as men who were not initially approached, after recognizing other men filling out forms walked over and made inquires to the RAs about how to volunteer to take part in the study. After being informed of what was taking place, these men too, without hesitation, volunteered to take part in the study. As a result, the required sample was obtained

before anyone responding to the posted flyers or who was referred called to set up an appointment.

Each questionnaire was self-administered and required the use of a pen or pencil. Pens and/or pencils were made available and distributed along with questionnaires by the assistants. Participants were verbally informed that the questionnaire might take up to 25 minutes to complete. The timing to complete the questionnaires was confirmed during field testing of the instruments. Data were collected over a period of 3 weeks and analyzed using descriptive statistics, correlations, and hierarchical multiple regression analysis.

Instrumentation

The Male Role Norms Scale (MRNS) (Thompson & Pleck, 1986), The Condom Attitude Scale (CAS) (Sacco et al., 1993), and Condom Use Self-Efficacy Scale (CUSES) (Bradford & Beck, 1991), questionnaires were not in the public domain. Written permission to use the measures from the authors was sought and obtained before the instruments were used (see Appendix J). Four standardized scales were used to measure the independent and dependent variables of the study (masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors), namely the 26-item MRNS (see Appendix K); the 9-item self control, questions 1 through 9 and 6 item perceived risk subscales, questions 10 through 15 of the CAS (see Appendix L); the 28-item CUSES (Brafford & Beck, 1991) (see Appendix M); and the 24-item Safe Sex Behavior Questionnaire (SSBQ) (DiIorio, Parsons, Lehr, Adame, & Carlone, 1992) (see Appendix N). A 15-item demographic questionnaire was developed by the researcher to obtain complete sociodemographic characteristics of each participant (see Appendix O).

Male Role Norm Scale (MRNS)

The MRNS is a 26-item questionnaire that measures the degree of endorsement and internalization of cultural belief systems about masculinity and masculine ideology. The purpose of the MRNS is to assess the perceived importance for men to think, feel, and behave in accordance with culturally defined standards for male behavior. Thompson and Pleck's (1986) factor analysis of the Brannon Masculinity Scale (Brannon & Juni, 1984) yielded three factors which are composed of the 26 items and three subscales: status norms (11 items, $\alpha = .81$), toughness norms (8 items, $\alpha = .74$), and antifemininity norms (7 items, $\alpha = .76$) (Pleck et al., 1993). All three subscales were used in the study, and the Cronbach's alpha coefficient for the total scale was .80.

The status norms subscale is comprised of 11 items (e.g., "*Success in his work has to be man's central goal in this life.*"). The toughness Norms subscale is comprised of 8 items (e.g., "*When a man is feeling a little pain he should try not to let it show very much*.". The AntifemininityNorms subscale is comprised of 7 items (e.g., "*I might find it a bit silly or embarrassing if a male friend of mine cried over a sad love scene in a movie*."). All items on the subscales are interval levels of measurement and are scored on a 5-point, Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Questions 8 and 14 were reverse scored, and ratings were summed or averaged for each subscale. Higher scores indicated higher endorsement of masculinity ideology.

The MRNS has been widely accepted and used across a range of gender role research (Thompson & Pleck, 1995) including studies on men's endorsement of masculine role norms (Fischer, Tokar, Good, & Snell, 1998); rape-supportive ideology (Good, Heppner, Hillenbrand-Gunn, & Wang, 1995); adult men's psychological problems

(Small & Riley, 1990); intimacy style (Thoreson, Shaughnessy, Cook, & Moore, 1993); masculine gender-role ideology (Abreu, Goodyear, Campos, & Newcomb, 2000) and male choice (Jome & Tokar, 1998). In an assessment of construct validity, the MRNS correlated with scores of masculine gender role stress (Thompson, Pleck, & Ferrera, 1992). Using discriminant analysis, the MRNS predicted coercive behavior when gender orientation and attitudes toward women were statistically controlled (Thompson, 1990).

Noar and Morokoff (2002) used the MRNS to study 272 undergraduate psychology major, heterosexual men (89% White; ages 18-20) to examine the relationships among masculine ideology, condom attitudes, and condom usage. Noar and Morokoff's (2002) study yielded acceptable Cronbach alpha coefficients for the antifemininity ($\alpha = .74$) and status ($\alpha = .78$) subscales, yet a marginal reliability estimate for the toughness ($\alpha = .69$) subscale.

Likewise, Jome and Tokar (1998) assessed masculinity-related variables and traditionality of career with a sample of 103 male undergraduate and graduate students (90% White; 4% Asian; 1% African American; *M* age = 26.20) at a large public Eastern-Central university. Favorable estimates of internal consistency reliability were reported for all three subscales: status ($\alpha = .83$), antifemininity ($\alpha = .79$), and toughness ($\alpha = .75$). Several studies also found favorable internal reliability estimates for the MRNS when used to measure masculine ideology and safer sex behaviors (Boone & Duran, 2009; Locke, Newcomb, & Goodyear, 2005; Shearer et al., 2005). Boone and Duran (2009) used the antifemininity subscale of the MRNS to assess 100 heterosexual, college male students (mean age = 19.7 years; 43% European American; 39% Christian) from the southwestern United States. Support for the internal consistency reliability of MRNS

was found in a study by Shearer et al. (2005) used to measure stereotypical norms about masculinity associated with unsafe sexual behavior. In a sample of 220 college students attending a large public university in the northeastern United States (ages 18 to 25 years, [*M* age = 20.8, *SD* = 1.7]); predominantly European American, 76%; heterosexual, 93%), the alpha coefficients for the subscales in this study ranged from .79 to .89.

Although numerous masculinity scales such as the Attitude Toward the Male Role Scale (Doyle & Moore, 1978); Attitudes Toward Men Scale (Iazzo, 1983); Stereotypes About Male Sexuality Scale (Snell, Belk, & Hawkins, 1986); and the Macho Scale (Vellemez & Touhey, 1977) were found in the literature, the MRNS appeared to be most appropriate for Bahamian men because the scale was originally designed for use with men. Moreover, since sexual behavior is socially constructed (Courtenay, 2000) and condom use is highly affected by cultural values in a society, the MRNS clearly measures the construct of masculine standards from a normative perspective when compared to other scales. After review and critique of the instruments, it was concluded that these instruments were not as comprehensive in measuring masculine standards as the MRNS; were not as easily read, and did not capture the normative perspectives of male standards as a required measure for the study. Last, the literature has suggested that the more the item response options, the better. The primary benefit is that it provides for more variability (Nunnally, 1978). MRNS items use a 5-point scale unlike the other scales reviewed which had items with less than five response options. For these reasons, the MRNS was used to measure masculine ideology among Bahamian men.

Condom Attitude Scale (CAS)

The CAS is a 57-item questionnaire that measures feelings, biases, ideas, and convictions about the ability to control one's sexual impulse and or perceived risks of contracting HIV during sexual intercourse (Banaj & Heiphetz, 2010). The purpose of the CAS is to assess one's feelings, biases, ideas, and convictions of the ability to consistently use condoms with a partner despite sexual impulses (Sacco, Rickman, Thompson, Levine, & Reed 1993). During its development, eight factors were retained when factor analysis was performed on all responses, followed by an oblique rotation.

This development resulted in 143 items. From the 143 items, 86 items were excluded primarily since they loaded less than .40 on any factor, loaded .30 or more on a second factor, and/or it did not fit well with the factor After the set was reanalyzed, the test re-test reliability was .86, and an 8-factor solution was found accounting for 85% of the variance. These eight indicators made up the CAS factors which included interpersonal impact (11 items), effect on sexual experience (10 items), self-control (9 items), global attitude (9 items) perceived risk (6 items), inhibition (4 items), promiscuity (3 items), and relationship safety (5 items). Condom attitudes were assessed using 15 items; (9-items) from the self control subscale and (6 items) from the perceived risk subscales. The responses to each item had a 6-point Likert scale ranging from 0 (*strongly disagree*) to 5 (*mostly agree*). The test-retest correlation's for the Sacco et al. (1993) subscales ranged from a moderate .52 to an excellent .84.

Participants in this study responded on a 6-point Likert-type scale ranging from 0 *strongly disagree* to 5 *strongly agree*. Participants reported their agreement or disagreement to statements such as "*I'm concerned about AIDS, but in the heat of the*

moment it wouldn't stop me from having sex without a condom," and "*If I 'm not careful, I could definitely catch AIDS*". All items on the subscale are interval levels of measurement and are reverse scored. Scoring was accomplished by adding the participant's responses to the subscale items. Participants who scored high on the CAS would be more likely to have a positive condom attitude. Items were summed to create a total scale score.

Several condom attitude scales (Brown, 1984; Helweg-Larsen & Collins, 1994; Madu & Peltzer, 2003; Talukdar, Bal, Sanyal, Roy, & Talukdar, 2008) were reviewed as potential measures of condom attitudes for the study. However, it was concluded that these scales did not measure an individual's perceived risk or self-control as required for the study. The subscales from the CAS were examined carefully to make certain that it was appropriate for Bahamian men. The literature has suggested that although this measure was constructed using heterosexual college students, it has been used with other sexually active populations including younger adolescents (Brown, 1984; Helweg-Larsen & Collins, 1994; Madu & Peltzer, 2003; Talukdar et al., 2008). The subscales were also selected over other scales since they showed adequate psychometric properties including factor loadings ranged from a low of .50 to a high of .87. Since this scale has never been used with Bahamian men, this study will add to the literature on the psychometric testing of the CAS.

Condom Use Self-Efficacy Scale (CUSES)

Condom use self-efficacy was assessed in this study by using the 28-item CUSES. The four factors of the CUSES were derived from factor analysis using four factors with eigenvalues greater than 1.0. Internal consistency estimates for the subscales were

mechanics (4 items: 1, 14, 22 and 27, α = -.78); partner's disapproval (5 items: 9, 10, 16, 17, and 18, α = 0.81); assertive (3 items: 4, 5, and 6, α= 0.80); intoxicants (3 items: 24, 25, and 28, α = 0.82) (Brien, Thombs, Mahoney, & Wallnau, 1994), while the Cronbach alpha for the entire scale was 0.91. Statements from the scale are clear, sensitive and easy to understand. For example, "*I feel confident to discuss condom usage with any partner I may have.*" and "*I were to suggest using a condom to a partner, I would feel afraid that she would reject me*."

All items on the subscales are interval levels of measurement and are scored on a five-point Likert-type scale ranging from 1 *strongly agree* to 5 *strongly disagree*. Among the CUSES subscales, only the items from the partner disapproval subscale were reversed scored. The possible total range of scores for the entire scale is from 28 to 140. Higher scores indicate higher perceptions of one's ability to use a condom with a partner's approval and or capability to convince and or persuade a partner to use condoms. It is hypothesized that men with greater endorsement of condom use self-efficacy would be more likely to use a condom with a partner approval and/or be more able to convince a partner to use a condom.

Construct validity of the CUSES was established using The Attitude Toward Condoms Scale (Brown, 1984; α = .51) which was used to measure attitude and the Contraceptive Self-Efficacy Scale which was used to assess efficacy to negotiate with partners (Levinson, 1986; α = .55). Findings supported the validity of the CUSES since condom users scored higher than noncondom users and sexually active participants scored higher than nonsexually active participants. Brien and colleagues (1994) assessed discriminant validity for the CUSES. Analyses indicated that the CUSES differentiated

sporadic and nonusers from regular condom users. Additionally, the test-retest reliability was also quite favorable for the CUSES (r = .81, N = 367; Brien et al., 1994).

There is an extensive range of self-efficacy related scales found in the literature. However, the CUSES scale was found to be the one that not only had satisfactory psychometric properties and ease of administration and scoring but, most importantly the scale is concise enough to capture the self-efficacy abilities of Bahamian men. Moreover, because this scale has never been used with Bahamian men, this study will add to the literature on psychometric testing of the CUSES.

Safe Sex Behavior Questionnaire (SSBQ)

Safer sex behaviors were measured by 24 items from the SSBQ. The SSBQ is a 27-item scale designed to measure frequency of use of recommended practices that reduce one's risk of exposure to and transmission of HIV. The author identified three weak items (6, 7, and 16) suggesting that other factors excluded from the study were important in determining condom use for the sample of respondents. These three items were dropped to form a 24-item SSBQ. Cronbach's alpha was .82 for the 27-item scale and .815 for the 24 item scale (DiIorio et al., 1992). Each item is rated on a 4-point scale ranging from 1 (never) to 4 (always) and interval levels of measurement. Since statistical computations and analyses assume that the variables have specific levels of measurement, all Likert scales in this study will be treated as interval – even though theoretically they are ordinal. This method was selected in order to be able to use statistics that assume the variable is interval, and equally spaced (Fraenkel & Wallen, 2009).

There are 17 positively worded items (e.g., "*I avoid direct contact with my sexual partner's semen or vaginal secretions*") and 10 negatively worded items ("*I engage in*

sexual intercourse on a first date"). The five subscales (i.e., risky behaviors, assertiveness, condom use, avoidance of bodily fluids, and avoidance of anal sex) are stable, with eigenvalues greater than 1.0 (DiIorio et al., 1992). After reverse coding the negatively worded items, responses are summed to yield a total score. The summed scores for the 24-item scale range from 24 to 96. Higher scores on the scale represent a greater frequency of safer sex practices.

The developers of the SSBQ used content experts to guide instrument construction. During this process, each item was assessed for content relevance and representation; the content validity index was assessed at 98%. Dilorio, Dudley, Soet, and McCarty (2004) employed the SSBQ to measure relationships between self-efficacy and condom use behavior among 1,380 college students (869 male; 511 female). For the Dilorio et al.'s sample (42.5%; African America males), the Cronbach's alpha was assessed at .79. The sample of African–American males is similar to the study's sample in relation to race and gender; however, they were dissimilar as they were all college students.

DiIorio, Parsons, Lehr, Adame, & Carlone (1993) reported the estimated reliability coefficient (Cronbach's alpha) for the SSBQ 24-item instrument to be .815 from a sample (n = 584) of sexually active college students (62.2% female; 37.8% male; M = 20.1 years; SD=1.68). Two-thirds of the participants were White (60.1%). The remainder of the sample was 32.5% Black, 4.1% Asian, and 2.7% Hispanic. Additionally, construct validity was assessed in a sample of 174 (88 male; 86 female) college students. The SSBQ yielded significant reliability coefficient in the College Self-

Expression Scale (Galassi, DeLo, Galassi, & Bastein, 1974) (Cronbach's alpha = .91) and the Risk Taking Questionnaire (Knowles, 1976; Cronbach's alpha = .89).

The SSBQ scale was selected for the study for several reasons. First, as reported, numerous studies have supported the psychometric properties of the SSBQ. However, since this scale has never been used with Bahamian men, this study will add on to the literature on psychometric testing of the SSBQ. Next, the scale appeared to be more culturally sensitive since it has been tested in a wide range of population in relation to gender and ethnicity. Last, when tested in African American males, it yielded a high Cronbach's alpha and may therefore capture the safer sex behaviors of Bahamian men.

Demographic Questionnaire

Davis and colleagues (2001) suggested that the decision to use condoms is based on various factor (i.e., marital status, age, and income). A 15-item demographic questionnaire was developed by the researcher to obtain complete descriptive statistics for sociodemographic characteristics. The participants' demographic and background characteristics were measured using nominal, ordinal, and interval levels of measurement. Questions were constructed to ensure social and cultural sensitivity of items as well as to elicit the appropriate description of each participant's demographic and background characteristics. For this study, age, income, and education were included in the hypotheses as predictor variables.

Item 1 on the demographic questionnaire is "*What is your present age*?" Age was an opened ended question measured in years. The next item asked "*What is your present relationship status?*" Relationship status was a nominal-level variable that described the present relationship (1 = *no relationship*, 2 = *married in an exclusive /monogamous*

sexual relationship, 3 = *not married but in an exclusive/monogamous sexual relationship*, 4 = *married and having sexual relationships with other people*, 5 = *not married and having sexual relationships with other people*).

The third item asked "*What is the length of your current relationship?*" The length of current and concurrent relationship was an open ended question measured in years. The fourth item was "*What is your highest level of education*?" Level of education was measured as an ordinal variable that measured the "level" of education completed (1 = *less than a high school degree*, 2 = *some high school*, 3 = *completed high school*, 4 = *some college, technical school or associates degree*, 5 = *bachelors degree [4-year college degree*], 6 = *some graduate school*, 7 = *graduate degree*).

The question assessing employment asked "*What is your current employment status*?" with a dichotomous response option (1 = *unemployed*, 2 = e*mployed*). To reduce missing data in the demographic questions, meaningful alternatives to the primary response options were provided such as: "*Refused to Answer*" and "*Don't Know*". The researcher recognizes that this approach does not reduce missing data in a truly meaningful way and needed to consider these options as missing in the data analysis. Nevertheless, providing these response options was helpful in describing the nature of the missing data. For example, since this category is not equally spaced, then the income status and the sixth question were measured in an ordinal level item in $10,000 increments (1= *less than $10,000;* 2 = $*10,001 to 20,000;* 3 = $*20,001 to $40,000.00;* 4 = *$40,001 to 50,000;* 5= *$50,001 to $60,000.00;* 6 = *More than $60,001*). The seventh response option was assigned 7 (*Refused to answer*) to represent a meaningful alternative. Worded as an open ended question, age of first sexual experience was the seventh

question and was measured in years. The eighth question addressed the absence or presence of biological father and asked, "*While you were growing up, were your father present or absent in the home where you lived*?" This response was measured as a dichotomous item (1= *absen*t or 2 = *present*).

The ninth question was used to clarify question 8. Participants were instructed to skip question nine if the answer to question eight was *present*. Question 9 was "*If your response was absent to question eight, what was or is the reason for your father's absence*?" The question had seven response options (1 = *I do not know why*, 2 = *died,* 3 = *mother and father separated [not divorced*], 4 = *mother and father divorced*, 5 = *father was the sweetheart to my mother*, 6 = *I do not know my father's identity*, 7 = *Other*).

Sexual history questions were questions 10 through 12. Question 10 was an open ended question and asked the number of lifetime sexual partners. The number of sexual partners within the last year was measured as an interval-level variable. Question 11, a dichotomous variable, asked "*Have you ever had any type of sexually transmitted disease*?" (1 = *no*; 1 = *yes*). Question 12 was a dichotomous item, "*Have you been tested for HIV*?" (1 = *no;* 2 = *yes*). Question 13, "*What is your sexual preference*?", had four categorical response options (1= s*traight,* 2 = *gay*, 3= *down-low*, 4 = *bisexual*). Questions 14 and 15 were specific questions that addressed the inclusion and exclusion criteria of the study. "*Were you born in the Bahamas*?" was a dichotomous measure (1 = *no*; 2 = *yes*). Question 15 was "*How long were you living in The Bahamas?*" and was measured in years?

Data Analysis

Data analysis an important step in the research process since it is the responsibility of the researcher to disseminate only accurate results from the study. The findings from this study contribute to and strengthen Bahamian health policies as well as expand nursing knowledge and practice about safer sex behaviors in the context of HIV prevention. The first step in the preanalysis phase of the quantitative analysis was to select a software package for analysis. The IBM SPSS Program 19.0 for Windows (SPSS Inc., Chicago, IL, USA) was used to analyze study data and was selected since it contains the necessary descriptive, correlational, and multivariate analyses modules necessary to complete the analyses for this study.

In the preanalysis phase, the researcher assessed the three key tasks of exploratory data analysis (i.e., outliers, missing value problems, data quality, and nonresponse bias). First, all completed questionnaires were assigned with unique identification number and then examined for completeness. Following the examination process, the creation of a data file set began by having the researcher and trained RAs enter the data into the computer. The data file set was set up to minimize data entry error.

Questionnaires are known for containing responses that maybe later identified as an outlier and or missing value (Norman, 2003). Since data entry is prone to error, the researcher reviewed the data file set for accuracy both via the computer and from a printout, specifically looking for (a) outliers, (b), missing data, and (c) consistency of entered data. An outlier refers to one that appears to deviate markedly from other members of the sample. Therefore, outliers were examined manually to determine

whether the cases should be included or discarded in the analysis (Fraenkel & Wallen, 2009).

The second step in the preanalysis phase after entering and verifying the data was to clean the data. To control for missing data in the demographic questionnaire, fixed and open-ended questions were assigned meaningful alternatives, such as "*Refused to Answer*" and/or "*Don't Know*". These alternative responses had numeric values such as 99, 999, or 9999. Recommendations on when to exclude questionnaires from further data analyses are varied. Researchers have recommended eliminating questionnaires with as little as 5% or as high as 20% missing data. Schafer (1999), Bennett (2001), and Peng, Harwell, Liou, and Ehman (2006) recommended eliminating 5%, 10%, and 20%, respectively.

Additionally, when dealing with sensitive issues such as sexual behavior, more missing data may be anticipated than is otherwise the case. Therefore, this study took a more sophisticated approach to handling missing data. For example, items in the multiple item scales and individual scale means were used to replace missing data by substituting the most typical responses so that the scale score could be computed (Fraenkel & Wallen, 2009). Last, all questions with fixed response alternatives and missing values were preassigned a numeric code that was printed on the data collection form and documented in a book. For example, to facilitate interpretation of findings, items that yielded dichotomous data were coded as zero and one (0 = *no*; 1 = *yes*).

Descriptive and Exploratory Analyses. Descriptive analyses were used to describe the overall sample. The next phase in data analysis was descriptive statistics which were used to help set the stage for understanding the research evidence, describe

the sample, and begin substantive analyses (Trochim, 2006). For this study, descriptive analyses were used to (a) describe one variable at a time, (b) describe the characteristics of the sample, (c) summarize the key research variables, and (d) document response rates including frequency distribution, central tendency, and variability. Moreover, descriptive statistics offers the readers of the report the opportunity to understand who the participants were, and introduced the demographic characteristics.

Exploratory analysis involves the inspection of frequency distributions, histograms, and measures of central tendency and variability for all demographic variables (Fraenkel & Wallen, 2009). For subscales, items and total scale score, frequency distributions and histograms with superimposed normal curves were run to determine outliers, skewness, kurtosis, and missing values. For example, if the distribution of responses for a continuous variable was highly skewed, the median and range were calculated. This technique is useful in allowing the researcher to see at a glance what the highest and lowest scores are and analyze the shapes of distributions (Fraenkel & Wallen, 2009).

Next, the level of measurement (i.e., nominal/categorical, ordinal/rank, interval, and ratio) and distributions (i.e., skewness, kurtosis) were used to determine the type of descriptive statistic for each variable. To describe the demographic and behavioral characteristics of the sample as well as responses to the independent and dependent variable items, frequencies and percentages were calculated for categorical variables and means and standard deviations were calculated for continuous variables. Reliability estimates for the instruments used in this study were obtained for the study sample and compared with estimates from previous studies. Cronbach's alphas were used in this

study for reliability estimates over Spearman-Brown split-half coefficients, because Cronbach alpha is often superior to split-half coefficients (Fraenkel & Wallen, 2009). Last, since the Kuder-Richardson Formula is only appropriate for dichotomous items, it was only used if items needed to be dichotomized (Fraenkel & Wallen, 2009).

Correlational analyses were performed across variables to examine associations among select demographic variables, independent variables, and the dependent variable. Before testing multivariable regression models for predictors of safer sex behaviors, correlations were used to check for multicollinearity among select demographic variables, masculine ideology, condom attitudes, and condom use self-efficacy. The Pearson product moment correlation coefficient (*r*) is the most widely used measure of correlation or association (Fraenkel & Wallen, 2009). The Pearson product-moment correlation coefficients (*r*) were used to quantify the relationships between select demographic variables, masculine ideology, condom attitudes, and self-efficacy for condom use.

Bivariate analyses were conducted to assess the associations between the independent variables and safer sex behaviors. Variables identified as significantly associated with safer sex behaviors (i.e., masculine ideology, condom attitudes, condom use self-efficacy) and thought to contribute (i.e., age, income and education) to safer sex behaviors were retained for the multivariable regression analysis if they correlated with safer sex behaviors at $p = .25$ and were noncollinear with other predictors, while adjusting for confounding factors (Rosengard et al., 2005). Hierarchical multivariable regression analyses examined potential predictors of Bahamian men's safer sex behaviors. Independent variables were entered into the linear regression models as two conceptual

blocks in the following order: The demographic variables over which the Bahamian men have little or no control (i.e., age, income, and education) were entered in the first block. In the second block, variables were entered that the participant has at least some control (i.e., masculine ideology, condom attitudes, and condom use self-efficacy). At each step, the change in the proportion of variance explained by each set of predictors was tested for significance. Residuals were tested for normality using Shapiro–Wilk statistics and quantile-quantile and box plots. If normality or unequal variance were found, transformation was performed and data were reanalyzed. For all tests, significance was set at .05.

In summary, a descriptive, correlational design was used to examine the relationships between the select demographic variables; the independent variables of masculine ideology, condom attitudes, and self-efficacy for condom use; and the dependent variable of safer sex behaviors among Bahamian men aged 18 years and older. All four instruments used in the study were relatively easy to score, read, and administer. The MRNS, CAS, CUSES, and SSBQ instruments have been shown to have favorable internal consistency reliability and validity in other studies which measured the variables to be studied.

Summary

Guided by the TPB, a descriptive, correlational design was used to gain an understanding of the factors (i.e., age, income, education, masculine ideology, condom attitudes, and condom use self-efficacy) associated with safer sex behaviors among Bahamian men. Included in this chapter are descriptions of the instruments to be used, instrument reliability and validity estimates, and data analysis techniques.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to (a) demonstrate the relationships among masculine ideology, condom attitudes, condom use self-efficacy and safer sex behaviors, and (b) identify predictors of safer sex behaviors among Bahamian men. Guided by the TPB, a descriptive, correlational design was used to gain an understanding of the factors (i.e., select demographic variables, masculine ideology, condom attitudes, and condom use self-efficacy) associated with safer sex behaviors among Bahamian men. A 108-itemed battery of questionnaires was used to measure the select demographics (i.e., age, income, education), independent and dependent variables of the study: the MRNS (Thompson & Pleck, 1986); the 9-item self control and 6-item perceived risk subscales of the CAS (Sacco et al., 1993); the 28 item CUSES (Brafford & Beck, 1991), and the 24-item SSBQ (DiIorio et al., 1992). A 15-item demographic questionnaire was developed by the researcher and was used to obtain descriptive demographic characteristics of each participant. This chapter presents the summary of the findings of this study.

Data were collected over 3 weeks using four standardized scales with a convenience sample of Bahamian men 18 years of age or older who lived in The Bahamas for more than 10 years. The RAs recruited men in areas that were convenient and most likely had male participants present. Men were recruited in public areas (i.e., barbershops, basketball courts, work benches), sitting on bleachers at a sports arena, and/or participating in group activities (e.g., church, men's meetings, workshops). Data were analyzed with the IBM SPSS Program 19.0 for Windows. Descriptive analyses

were used to describe the sample sociodemographic characteristics as well as scales and subscales. Reliability estimates were computed for each scale and subscale. Two research questions and seven hypotheses were tested using bivariate correlational and multivariate analyses. The Pearson product-moment correlation coefficient (*r*) was used to test the relationships between select demographic variables, masculine ideology, condom attitudes, and condom use self-efficacy, and hierarchical multiple regression analysis was used to examine potential predictors of Bahamian men's safer sex behaviors.

Descriptive Analyses

Description of the Sample

Through the use of convenience sampling strategies, 210 questionnaires were distributed to the six RAs and administered to Bahamian men ages 18 and older, 198 were returned for a response rate of 94%, which is an excellent response rate for survey methods (Bennett, 2001). However, of the 198 questionnaires that were returned, only 185 were usable and included in the final analysis. Of the 198, 13 (6.5%) questionnaires had 20% or more missing data on any of the four questionnaires. Recommendations on when to exclude questionnaires from further data analyses are varied. Some researchers have recommended eliminating questionnaires with as little as 5% to as high as 20% missing data. Peng et al. (2006) recommended eliminating 20%.

A post hoc power analysis was conducted using G*POWER software (Faul et al. 2009b) which revealed that the power achieved was 99% for bivariate correlations with a medium effect size and alpha set at .05. Using six predictor variables with a sample of 185, power calculated for medium effect size ($f^2 = .15$) for the addition of a predictor in

the multiple regression was 84.5%. These power values indicated that 185 was an adequate sample to detect existing associations between and among the major study variables (Cohen, 1988).

Demographic and Background Characteristics

Of the participants, 172 (92%) had been living in The Bahamas an average of 27 years (*SD* = 11.7), with a range of 10 to 63 years. The average age of the participants was 31.95 (*SD* = 11.35), and ranged from 18 to 63 years old, with 1.1% (2 persons) at age 63. The largest number of participants (*n* = 13, 7%) was age 18. Examination of the frequency distribution and histogram with superimposed normal curve for the age variable revealed a quasinormal distribution. Regarding relationship status, a total of 59 (32%) was in a current relationship between 1-5 years. Forty eight (27%) of the participants reported being married and in an exclusive monogamous sexual relationship, while 34 (19%) reported not being married but having sexual relationships with more than one person.

Regarding education, more than a quarter (*n* = 57, 31 %,) of the participants completed high school, one third (*n* = 61, 33 %,) had completed some college or technical school, and only 11 (6%) completed less than a high school diploma. More than a quarter (*n* = 52, 28%) of the sample indicated that their yearly income was between $20,001 and $40,000, and more than three quarters of the participants (*n* = 140, 76%) were employed (see Table 1).

Table 1

Demographic and Background Characteristics of the Sample (*N* = 185)

Characteristics	*M*	*SD*	Range
Length of time living in The Bahamas	27	11.70	10 - 63
Age in years	31.95	11.35	18 - 63
		n	%
Relationship Status			
Not currently in a relationship but sexually active within the last 3 months		49	26.5
Married in an exclusive/monogamous relationship		48	26
Not married having sexual relationships with more than one partner		34	19
Married and having sexual relationships with more than one partner		15	8.1
Did not respond		38	20
Highest Level of Education			
Less than high school		11	6.0
Some high school		14	7.6
Completed high school		57	31
Some college/technical school		61	33
Associates of Science degree		17	9.2
Bachelors of Science degree		17	9.2
Graduate degree		4	2.2
Did not respond		4	2.2
Employment Status			
Employed		140	76
Unemployed		43	23.2
Did not respond		2	1.1
Yearly Income (Bahamian Dollars)			
No Income		7	3.8
Less than $10,000		27	14.6
$10,000 – 20,000		24	13.0
$20,001 – 40, 000		52	28.1
$40,001 – 50,000		26	14.1
$50,001 – 60,000		10	5.4
More than $60, 000		2	1.1
Did not respond		37	20.0

Regarding age of first sexual experience, among the 185 participants, 168 responded. Nearly half of the sample (*n* = 96, 52%) indicated that they had their first sexual experience between the ages of 14 -18 years old. Thirteen percent (*n* = 24) reported that they had sex for the first time at age 16. Among the 168, (*n* = 2, 1%) reported that they had their first sexual experience at the age of 6. This represented the youngest age of first sexual experience, while age 31 (*n* = 1, 0.5%) represented the oldest. Almost half of the participants (*n* = 88, 48%) reported they had an absent father in the home where they lived while growing up. Among the men who had an absent father (*n* = 18, 10%) indicated that their fathers and mothers were never married, while 23 (13%) reported that they did not know why their father was absent (see Table 2).

Table 2

Additional Demographic and Background Characteristics of the Sample (N = 185)

Characteristics	*n*	%
Age of First Sexual Experience (years)		
6	2	1.2
14	11	5.9
15	21	11.4
16	24	13.0
17	19	10.3
18	21	11.4
31	1	.05
Did not respond	17	9.2
Presence of Biological Father in Home		
Father Present	96	51.9
Absent Father	88	48
Did not respond	1	.1

Reason for Absent Father		
Does not Know Why	23	12.4
My Mother and Father were never Married	18	9.7
Mother and Father Separated (Not Divorce)		
Father was the sweetheart to my mother	13	7.0
I do not know my Father's identity	9	4.9
Mother and Father Divorce	7	3.9
Father Died Before I was 18 Years Old	6	3.2
Did not respond	6	3.2
	3	1.6

A majority of the sample (*n* = 113, 61 %) reported having had between 1 and 10 lifetime sexual partners. Thirty five (19%) reported that they had 11-20 lifetime sexual partners, while 11(6%) reported that they had 71 – 100 lifetime sexual partners. While a few of the participants (*n* = 10, 6 %,) described themselves as gay, on the down-low, or bisexual, almost all (*n* = 174, 94%) described themselves as straight and or heterosexual. With regard to HIV status, two-thirds of the participants (*n* = 123, 67 %) reported being tested for HIV in the past. Among the 185 participants, thirty five (19%) reported a history of some type of sexually transmitted disease (see Table 3).

Table 3

Sample Characteristics Pertaining to HIV/STIs (*N* = 185)

Characteristics	*n*	%
Number of Lifetime Partners		
1 – 10	113	61.0
11 – 20	35	19.0
71 – 100	11	6.0
Did not respond	27	14.6
Self-Identified Sexual Orientation		
Gay/down-low/bisexual	10	6.0
Heterosexual	175	94

Ever Been Tested for HIV		
Yes	123	67
No	62	33
History of Sexually Transmitted Infections		
Yes	34	18.4
No	147	79.5
Did not respond	4	2.2

Exploratory Data Analyses

To determine outliers, skewness, kurtosis, and missing values for all subscales, frequency distributions and histograms with superimposed normal curves were run for all items and total scale scores. For example, if the distribution of responses for a continuous variable was highly skewed, the median and range were calculated. This technique was useful since it allowed the researcher to see at a glance what the highest and lowest scores were and analyze the shapes of distributions (Fraenkel & Wallen, 2009). Reliability estimates (i.e., Cronbach's alphas) were computed for the study sample subscales and scales and compared with those from previous studies. Item 5 from the MRNS and item 17 from the CUSES were deleted since deleting these items improved the total scale reliability. No item was deleted from the CAS and SSBQ since alpha if items deleted values indicated that deleting items would not have improved these subscale and total scale reliability estimates.

The MRNS is a 26-item questionnaire (Thompson & Pleck, 1986) and was used in this study to assess the perceived importance of how Bahamian men think, feel, and behave in accordance with culturally defined standards for male behavior. All items on the subscales are interval levels of measurement and are scored on a 5-point, Likert-type scale, from 1 *strongly disagree*)to 5 *strongly agree*. Of the 26 items, questions 8 and 14

were reverse scored. Items were summed for each subscale. In addition, items were summed up to provide a total general masculine ideology score. Total scale scores can range from 26 to 130, with higher scores indicating higher endorsement of masculinity ideology. The skewness of the distribution (-.823) and, kurtosis of the distribution (1.204) fell inside the range from -2.0 to +2.0 . Visualization of the histogram for this variable with superimposed normal curve showed that the distribution of the scores was mesokurtic. Distributions where a distribution of scores are normally distributed is said to be mesokurtic (Joanes & Gill, 1998).

The CAS is a 15-item questionnaire (Sacco et al., 1993) and was used in this study to assess how Bahamian men's feelings, biases, ideas, and convictions toward the ability to control sexual impulse and/or perceived risks of contracting HIV during sexual intercourse (Banaj & Heiphetz, 2010). All items on the subscales are interval levels of measurement and are scored on a 6-point, Likert-type scale, from 0 (*strongly disagree*) to 5 (*mostly agree*). Of the 15 items, questions 1 through 9 were reverse scored. Items were summed for each subscale. In addition, items were summed up to provide a total general condom attitudes score. Total scores ranged from 0 to 75, with higher scores indicating positive attitudes towards condoms. The skewness of the distribution (.913), and the kurtosis of the distribution (-.204) fell within the range from -2.0 to +2.0. Visualization of the histogram for this variable with superimposed normal curve showed that the distribution of the scores was platykurtic. Distributions where a large proportion of the scores are towards the extremes are said to be platykurtic (Joanes & Gill, 1998).

The CUSES is a 28-item questionnaire (Brafford & Beck, 1991) and was used in this study to assess Bahamian men appraisal of their perception of their abilities to use a

condom with a partner's approval and/or their capabilities to convince and/or persuade a partner to use condoms (Bandura, 2004). All items on the subscales are interval levels of measurement and are scored on a 5-point, Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Five items (i.e., items 9, 10, 16, 17, 18) were reverse scored. Items were summed for each subscale. Items were summed up to provide a total general condom use self-efficacy score. Total scale scores ranged from 28 to 140, with higher scores indicating higher perception of ability to use a condom with a partner's approval and capability to convince and or persuade a partner to use condoms. Skewness (1.016) and kurtosis of the distribution (.371) fell within the range from -2.0 to +2.0.

The SSBQ is a 24-item questionnaire (DiIorio et al., 1992) and was used in this study to assess Bahamian men's behavior involving protection of himself against sexually transmitted diseases by using condoms during intercourse. All items on the scale are interval levels of measurement and are scored on a 4-point, Likert-type scale ranging from 1 *never* to 4 *always*. Ten of the 24 items were reverse scored. Ratings were summed or averaged for a total score for the SSBQ. Total scores can range from 24 to 96 with higher scores indicating greater frequency of safer sex practices. Skewness (1.017) and kurtosis of the distribution (.176) fell inside the range from -2.0 to +2.0.

Measurement Assessments

Male Role Norms Scale

The MRNS was used to measure masculine ideology in Bahamian men. The Cronbach's alpha for the sample in this study was $\alpha = .78$. Despite Janey, Janey, Goncherova, and Savchenko's (2006) report of a higher Cronbach's alpha of .86, the

Cronbach's alpha obtained in this study was somewhat lower than the estimate reported by Thompson and Pleck (1986) of .80. Similar to the literature, however, when used among nonWhite, college men, the MRNS yielded marginal reliability estimates for antifemininity (α = .66), toughness (α = .68), and status norms (α = .63) (Locke et al., 2005). Although subscales for instruments were not used in tests of hypotheses for this study, reliability estimates for Bahamian men were important serendipitous findings from this study, and this study also showed marginal to low reliability estimates for the antifemininity (α = .70), status norms (α = .76), and toughness (α = .46), subscales (see Table 4).

Table 4

Internal Consistency (Cronbach's Alphas) for Study Measures and Subscales (*N* = 185)

Instrument	Number of Items	Cronbach's Alpha
Male Role Norms Total Scale	26	.78
Antifemininity	7	.70
Status Norms	11	.76
Toughness	8	.46
Condom Attitudes Scale Total Scale	15	.83
Self-Control	9	.86
Perceived Risks	6	.63
Condom Use Self-Efficacy Total Scale	28	.69
Safer Sex Behaviors Questionnaire Total Scale	24	.92
Avoidance of Bodily Fluids	2	.91
Condom Use Subscale	5	.81
Assertiveness	10	.87
Avoidance of Anal Sex	1	.78
Risky Behavior	6	.58

Condom Attitudes Scale

The 9-item self-control and 6-item perceived risks subscales of the CAS were used to measure Bahamian men's perceived risk or self-control toward condom use. The CAS was originally developed with predominantly White American young adults. However, a favorable reliability estimate (α = .83) was obtained with Bahamian men in this study. The Cronbach's alpha was similar to an estimate of .89 reported by Sacco et al. (1993). Sacco and colleagues conducted two studies one year apart, to examine gender differences in AIDS-relevant condom attitudes, condom use behaviors, and relationships among attitudes and condom use behaviors. Participants of the study (N = 248, N = 528) were undergraduates and primarily heterosexual. Somewhat consistent with the literature, when compared estimates obtained in this study, Sacco et al. reported a higher alpha for the perceived risks subscale (α = .79 and a similar alpha for the self-control, (α = .87). This study yielded a high reliability estimate (α = .86) for self-control and a marginal reliability estimate (α = .63) for perceived risks (see Table 4).

Condom Use Self-Efficacy Scale

The CUSES (Brafford & Beck, 1991) was used to assess Bahamian men's perceptions of their abilities to use a condom with a partner's approval and/or capabilities to convince and or persuade a partner to use condoms. The Cronbach's alpha for the total CUSES was .69. This estimate was slightly lower when compared with previous literature. Using path analysis to test a model of the relationships among condom use knowledge, self-efficacy for condom use, coping, and condom use in a sample of 100 urban women, Lindberg (2000) reported a slightly higher Cronbach's alpha of .71. Whereas, Woolf and Miasto (2008) examined how "difficult" it would be to implement

condom use in a variety of situations among (N = 203) heterosexual, sexually active, undergraduate students from a private university in the United States and reported an even higher Cronbach's alpha of .93. However, the reliability estimate obtained with Bahamian men was higher than estimates reported for The Attitude Toward Condoms Scale (Brown, 1984; α = .51) which was used to measure attitude and the Contraceptive Self-Efficacy Scale which was used to assess efficacy to negotiate with partners (Levinson, 1986; α = .55).

Safer Sex Behavior Questionnaire

The SSBQ (DiIorio, Parsons, Lehr, Adame, & Carlone, 1992) was used to measure Bahamian men's frequency of use of recommended practices that reduce risk of exposure to and transmission of HIV. In the present study, the total SSBQ had a Cronbach's alpha of .92. Similar to previous literature, Galassi and colleagues (1974) reported a Cronbach alpha of .91. Dilorio and colleagues (2004) reported a lower, but modest Cronbach's alpha of .79. Consistent with subscale estimates obtained in the present study, Gardner, Frank, and Amankwaa (1998) reported high reliability estimates for the risky behavior subscale (α = .88), avoidance of bodily fluids subscale (α = .88), condom use subscale (α = .69), assertiveness subscale (α = .78), and avoidance of anal sex subscale (α = .88). The present study demonstrated high reliability estimates for the avoidance of bodily fluids subscale (α = .91), condom use subscale (α = .81), assertiveness subscale (α = .87), and avoidance of anal sex subscale (α = .78) and marginal reliability estimates for the risky behavior subscale (α = .58) suggesting that other factors excluded from this study may be important in determining safer sex behaviors for this sample of participants (see Table 4).

Descriptive Findings for Major Study Variables

Masculine Ideology

The MRNS consists of 26 items, including two negatively worded items. Each item is rated on a 5-point scale. Total scores for the scale can range from 26 to 130, with higher scores indicating endorsement of masculine ideology. Bahamian men's scores on the MRNS ranged from 50 to 115 (M = 90, SD = 9.99) (see Table 5). The distribution of scores indicated that on average, Bahamian men had very high self-reported endorsement of masculine ideology. Masculine ideology items with which Bahamian men were most likely to agree included the following: (a) "A-man should always try to project an air of confidence even if he really does not feel confident inside." (M = 4.37, SD = .987); (b) "A man whose hobbies are cooking, sewing, and going to the ballet probably would not appeal to me." *(*M = 4.21, SD = 1.04); (c) "Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary." (M = 3.97, SD = 1.44); (d) "A real man enjoys a bit of danger now and then" (M = 4.17, SD = 1.33); (e) "It is essential for a man to always have the respect and admiration of everyone who know him." (M = 4.3, SD = 1.14).

Conversely, items with which Bahamian men were most likely to disagree included the following: (a) "When a man is feeling pain, he should try not to let it show very much." (M = 2.47, SD = 1.03); (b) "Success in his work has to be a man's central goal in life" (M = 2.07, SD = 1.09); (c) "A man should generally work over time to make more money whenever he has the chance." (M = 2.85, SD = 1.07); (d) "Fists are sometimes the only way to get out of a bad situation" (M = 2.41, SD = 1.09); and (e) "I always like a man who is totally sure of himself." (M = 2.40, SD = 1.05) (see Table 5).

Condom Attitudes

The overall mean score on the CAS scores for Bahamian men in this study was (M = 21, SD = 13.5) (see Table 5). Bahamian men's scores ranged from 10 – 66 (see Table 5). The Bahamian men's CAS subscale mean scores were 4.44 (SD = 8.51) for self-control and 15 (SD = 5.89) for perceived risks. These scores were also comparable with those reported previously by Sacco and colleagues (1993). The results indicate that Bahamian men in general had a negative perception toward condom use. Further analysis of the subscales indicates that participants perceived more self-control than perceived risks. Condom attitudes items with which Bahamian men were most likely to agree included the following: (a) "I am concerned about catching AIDS, so I would be careful and play it safe even in the heat of the moment." (M = 4.25, SD = 1.47); (b) "If I engage in sexual intercourse without using a condom, I could definitely catch a sexually transmitted disease." (M = 4.47, SD = 1.07); (c) "If I am not careful, I could definitely catch a sexually transmitted disease" (M = 4.54, SD = 1.05); (d) "If I engage in sexual intercourse without using a condom, I could definitely catch AIDS" (M = 4.29, SD = 1.16) and (e) "I am concerned about catching AIDS or other sexually transmitted diseases so I'd be careful and play it safe even in the heat of the moment" (M = 4.25, SD = 1.47).

Conversely, items with which Bahamian men were most likely to disagree included the following: (a) "I am concerned about catching AIDS, but in the heat of the moment it probably would not stop me from having intercourse without a condom." (M = .994, SD = 1.60), (b) "I am concerned about catching sexually transmitted disease, but in the heat of the moment, it probably would not stop me from having intercourse without a

condom." (*M* = 1.06, *SD* = 1.69); (c) "If a condom is not handy, I'll have sexual intercourse anyway" (*M* = .956, *SD* = 1.59); (d) "I probably would not use a condom if I was drunk or high" (*M* = .846, *SD* = 1.43); and (e) "I worry that I could catch a sexually transmitted disease." (*M* = 1.86, *SD* = 2.07).

Condom Use Self-Efficacy

The CUSES consists of 28 items. Of the subscales, only the items from the partner disapproval subscale, are reversed scored. Each item is rated on a 5-point scale. Total self-efficacy scores can range from 28 to 140, with higher scores indicating higher levels of one's ability to use a condom with a partner's approval and capability to convince and/or persuade a partner to use condoms. Bahamian men's scores on the CUSES ranged from 36 to 111 (*M* = 59, *SD* = 11.82) (see Table 5). The distribution of scores indicated that Bahamian men had very low self-reported self-efficacy for condom use. The CUSES items with which Bahamian men were most likely to agree included the following: (a) "I feel confident in my ability to put a condom on myself or my partner." (*M* =1.45, *SD* = .889); (b) "I feel confident I could purchase condoms without feeling embarrassed." (*M* = 1.42, *SD* = .889); (c) "I feel confident I could remember to carry a condom with me should I need one." (*M* = 1.55, *SD* = .89); (d) "I feel confident in my ability to discuss condom usage with any partner I might have." (*M* = 1.42, SD = .89); and (e) "I feel confident I could suggest using a condom without my partner feeling diseased." (*M* = 1.50, *SD* = .98).

Conversely, items with which Bahamian men were most likely to disagree included the following: (a) "If I were to suggest a condom to a partner, I would feel afraid that he or she would reject me" (*M* = 4.23, *SD* = 1.14); (b) "If I were unsure of my

partner's feelings about using condoms, I would not suggest using one." (*M* = 4.12, *SD* = 1.29); (c) "If I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I had a sexually transmitted disease." (*M* = 4.42, *SD* = 7.27); (d) "I would feel comfortable discussing condom use with a potential partner before we ever engaged I intercourse." (*M* = 3.84, *SD* = 1.45); and (e) "I feel confident in my ability to incorporate putting on a condom on myself into foreplay." (*M* = 4.21, *SD* = 7.16).

Safer Sex Behavior

The SSBQ consists of 24 items, including 14 positively worded items and 10 negatively worded items. Each item is rated on a 4-point scale ranging from 1 (*never*) to 4 (*always*). Total SSBQ scores can range from 24 to 96, with higher scores indicating higher frequency of safer sex practices. Bahamian men's scores on the SSBQ ranged from 24 to 96 (*M* = 38, *SD* = 14.25) (see Table 5). The distribution of scores indicated that on the average Bahamian men had a low frequency of safer sex practices. The SSBQ items to which Bahamian men were most likely to agree included the following: (a) "I ask potential sexual partners about their histories." (*M* = 3.51, *SD* = .879); (b) "I abstain from sexual intercourse when I do not know m partner's sexual history." (*M* = 3.5, *SD* = .88); (c) "If my partner insist on sexual intercourse without a condom, I refuse to have sexual intercourse." (*M* = 3.57, *SD* = .791) and (d) "I ask potential sexual partners about their sexual histories." (*M* = 3.51, *SD* = .879)

Conversely, items with which Bahamian men were most likely to disagree included the following: (a) "I insist on condom use when I have sexual intercourse." (*M* = 1.76, *SD* = 1.1); (b) "I use cocaine or other drugs prior to or during sexual intercourse."

(*M* = 1.20, *SD* = .61); (c) "I stop foreplay long enough to put on a condom." (*M* = 1.61, *SD* = 1.0). (d) "I avoid direct contact with my sexual partner's vaginal secretions." (*M* = 1.57, *SD* = .947); and (e) "I ask my potential sexual partners about a history of bisexual or homosexual practices" (*M* = 1.50, *SD* = .921).

The scores for the Risky Behavior subscale (*M* = 12.63, *SD* = 3.15) showed that Bahamian men were likely to engage in risky sexual behavior. The scores for the Assertiveness subscale (*M* = 18.38, *SD* = 7.7) and the Condom Use subscale (*M* = 9.28, *SD* = 3.08) suggested that Bahamian men were not assertive and more than likely did not use condoms during sexual intercourse.

Table 5

Descriptive Statistics for Major Study Variables (*N* = 185)

Instrument	Number of Items	*M*	*SD*	Range
Male Role Norms Scale (MRNS)	26	90	9.99	50 – 115
Subscales				
Antifemininity	7	25.85	4.18	13 - 35
Status Norms	11	35.65	5.12	19 - 49
Toughness	8	26.39	3.16	13 - 35
Condom Attitudes Scale (CAS)	15	21	13.5	10 - 66
Subscales				
Self-Control	9	4.44	8.51	0 – 37
Perceived Risks	6	15	5.89	5 - 30
Condom Use Self-Efficacy Scale (CUSES)	27	59	11.82	36 – 111
Safer Sex Behaviors Questionnaire (SSBQ)	24	38	14.25	24 – 96
Subscales				
Risky Behavior	6	12.63	3.15	7 – 21
Assertiveness	10	18.38	7.70	10- 38
Condom Use Subscale	5	9.28	3.08	5 -19
Avoidance of Bodily Fluids	1	1.78	0.07	1-14
Avoidance of Anal Sex	2	1.37	1.02	1-4

Note: MRNS - Higher scores indicating endorsement of masculine ideology
CAS - Lower scores indicating negative perception toward condom use
CUSES – Lower scores indicating decrease levels of one's ability to use a condom with a partner's approval
SSBQ – Lower scores indicating lower frequency of safer sex practices

Hypotheses Testing

Correlational analyses were performed across variables to examine associations among select demographics, independent variables, and the dependent variable. The Pearson product-moment correlation coefficient (r) was used to quantify the relationships between select demographics, masculine ideology, condom attitudes, and condom use self-efficacy. The results demonstrated that age, income, education, and three independent variables (i.e., masculine ideology, condom attitudes, and condom use self-efficacy) demonstrated relatively weak to moderate associations among themselves (see Table 6). Table 6 shows the bivariate relationships between select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, condom use self-efficacy and safer sex behaviors.

Hypothesis 1: There Will be a Negative Relationship Between Bahamian Men's Masculine Ideology and Condom Attitudes

A correlational analysis was conducted to test for a relationship between masculine ideology and condom attitudes. The results demonstrated that masculine ideology was statistically and significantly negatively associated with condom attitudes ($r = -.163$, $p < .05$) (see Table 6). The finding suggests that the higher Bahamian men's endorsement of masculinity ideology, the more negative condom attitudes tended to be, consistent with the research hypothesis. Therefore, the first research hypothesis is supported.

Table 6

Bivariate Correlations Between Major Study Variables (N = 185)

	Age	Income	Education	Masculine Ideology	Condom Attitudes	Condom Use Efficacy	Safer Sex Behaviors
Age	--	.346**	.205**	--	--	--	--
Income	--	--	.264**	--	--	--	--
Education	--	--		--	--	--	--
Masculine Ideology	.148*	--	--	--	-.163*	-.015	-.252**
Condom Attitudes	-.320**	--	-.191*	--	--	--	--
Condom use Self Efficacy	--	--	--	--	.404**	--	--
Safer Sex Behaviors	-.209**	-.158*	-.198**	-.252*	.512**	.381**	--

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

Hypothesis 2: There Will be a Negative Relationship Between Bahamian Men's Masculine Ideology and Condom Use Self-Efficacy

A correlational analysis was conducted to test for a relationship between masculine ideology and the condom use self-efficacy. The results demonstrated that masculine ideology was not statistically associated with condom use self-efficacy (r = -.015, p > .05). Therefore, the null hypothesis was not rejected. This finding suggests that Bahamian men's endorsement of masculine ideology was not associated with his perception of or his ability to use a condom with a partner.

Hypothesis 3: There Will Be a Negative Relationship Between Bahamian Men's Masculine Ideology and Safer Sex Behaviors

Correlational analysis was conducted to test for a relationship between masculine ideology and the safer sex behaviors. The results demonstrated that masculine ideology was negatively associated with safer sex behaviors (r = -.252, $p < .01$). Therefore, the third research hypothesis is supported. This finding suggests that Bahamian men with a higher endorsement of masculine ideology practiced safer sex behaviors more frequently during sexual intercourse.

Hypothesis 4: There Will be a Positive Relationship between Bahamian Men's Condom Attitudes and Safer Sex Behaviors

Correlational analysis was conducted to test for a relationship between condom attitudes and safer sex behaviors. The results demonstrated that condom attitudes was positively associated with condom attitudes (r = .512, $p < .01$). Therefore, the fourth research hypothesis is supported. Consistent with the research hypothesis, Bahamian men with more positive condom attitudes reported that they practiced safer sex behaviors more frequently.

Hypothesis 5: There Will be a Positive Relationship Between Bahamian Men's Condom Attitudes and Self-Efficacy for Condom Use

A Pearson product-moment correlation was conducted to test for a relationship between condom attitudes and self-efficacy for condom use. The results demonstrated that condom attitudes was positively associated with self-efficacy for condom use (r = .404, $p < .01$). Therefore, the fifth research hypothesis is supported. Consistent with the research hypothesis, Bahamian men with more positive condom attitudes reported higher

perceptions of their ability to use a condom with a partner's approval and/or capabilities to convince and or persuade a partner to use condoms.

Hypothesis 6: There Will be a Positive Relationship Between Bahamian Men's Condom Use Self-Efficacy and Safer Sex Behaviors

A correlational analysis was used to test for a relationship between condom use self-efficacy and safer sex behaviors. The results demonstrated that self-efficacy for condom use was positively associated with safer sex behaviors ($r = .381$, $p < .01$). Therefore, research hypothesis six is supported. Consistent with the research hypothesis, Bahamian men with higher perceptions of their abilities to use a condom with a partner's approval and/or capabilities to convince and/or persuade a partner to use condoms practice safer sex more frequently.

Hierarchical Multivariable Regression Analyses

Prior to regression analysis, the assumptions of multiple regressions were tested and satisfied (e.g., normality, the removal of outliers, standardized residuals not larger than +/- 3.0). The Durbin-Watson statistic was selected to test for the presence of serial correlation among the residuals (i.e., the assumption of independence of errors, which requires that the residuals or errors in prediction do not follow a pattern from case to case). The value of the Durbin-Watson statistic ranges from 0 to 4. The residuals for this study were not correlated (Durbin-Watson statistic = 1.461) (see Table 7). A test for multicollinearity was performed among select demographics, masculine ideology, condom attitudes, and condom use self-efficacy.

Table 7

Standardized Regression Coefficients for Multiple Regression Analysis of Masculine Ideology, Condom Attitudes, Condom Use Self-Efficacy and Income as Contributors to Bahamian Men's Frequency of Safer Sex Behaviors (N = 185)

Variable	β	*t*	*p Value*
Age	*.056*	0.75	*.455*
Education	*-.051*	-0.74	*.463*
Income	*-.153*	*-2.08*	*.039*
Masculine Ideology	*-.244*	*-3.51*	*.001*
Condom Attitudes	*.363*	*4.79*	*<.001*
Condom Use Self-Efficacy	*.148*	*2.05*	*.042*

Model $F\ (6,154) = 2.59$, $p < .001$, $R^2 = 32.8\%$

Tolerance was assessed among the independent variables. A tolerance level below .40 is an indication that multicollinearity might be a problem (Mertler & Vannatta, 2002). Tolerance in this study was between .758 and .927 for the independent variables. Because this value is close to 1, it had a small variance inflation factor (VIF). Thus, it was found that no collinearity existed between the independent variables of masculine ideology, condom attitudes, and self-efficacy for condom use.

Hypothesis 7: Select Demographic Variables (i.e., age, income, and education), Masculine Ideology, Condom Attitudes, and Self-Efficacy for Condom Use Will Predict Safer Sex Behaviors Among Bahamian Men

Hierarchical multiple regression was performed to test Hypothesis 7. The demographic variables (i.e., age, income, and education) were entered in the first block. In the second block, major study variables (i.e., masculine ideology, condom attitudes, and self-efficacy for condom use) were entered into the equation. In the first block, the

control variables accounted for 4.7% of the variance of the (R^2 = .047) and provided no significant contribution (p = .055) to the frequency of safer sex behaviors. The R^2 from block 1 to block 2 was .281 from .047. to .328 and was significant F (3,157) = 21.42, p <.001. After controlling for age, income, and education, the predictor variables masculine ideology, condom attitudes and self-efficacy for condom use accounted for a significant proportion of variance (28%) in safer sex behaviors. The overall model explained 33% of the variability of safer sex behaviors and was significant F (6,154) = 2.59, p<.001 (see Table 7).

Unstandardized regression coefficients for the regression analysis are presented in Table 8, for both steps. The results here and in Table 7 indicate that Bahamian men who practice safer sex behaviors more frequently have lower incomes, endorse lower levels of masculine ideology, have more positive attitudes toward condom use, and have higher perceptions of their ability to use a condom with a partner's approval and capability to persuade a partner to use a condom. Additionally, those men with higher income are more likely to not practice safer sex behaviors (see Table 8). The results for Hypothesis 7, therefore, suggested that masculine ideology, condom attitudes and condom use self-efficacy, provided a significant contribution to Bahamian men's safer sex behaviors.

Table 8

Unstandardized Coefficients of the Regression Analysis of Masculine Ideology, Condom Attitudes, Condom Use Self-Efficacy and Select Demographics as Contributors to Bahamian Men's Frequency of Safer Sex Behaviors (N = 185)

Variable	Model 1		Model 2	
	β	SE	β	SE
Age	-0.14	0.10	0.07	0.09
Education	-1.06	0.89	-0.56	0.76
Income	-.734	0.87	-1.20	0.58
Masculine Ideology	--	--	-0.36	0.10
Condom Attitudes	--	--	0.42	0.09
Condom Use Self-Efficacy	--	--	0.20	0.10

Dependent Variable: Safer Sex Behaviors; Model F (6,154) = 2.59, $p<.001$, $R^2 = 32.8\%$

What are the individual and combined contributions of select demographics variables (i.e., age, income, education) on safer sex behaviors among Bahamian men? Based on the statistical tests of the regression coefficients the control variable income (β = -.15, $p < .05$) was significant. A negative coefficient indicates an inverse relationship so that higher income was associated with lower frequency of safer sex behaviors. Neither age nor income coefficients were significant.

Based on the statistical test of the regression coefficient, masculine ideology (MRNS) (β = -.15, $p < .001$) was significant, thus confirming the research hypothesis. The negative coefficient indicates an inverse relationship so that high levels of masculine ideology are associated with lower frequency of safer sex behaviors (see Table 8). The statistical test of the regression coefficient for condom attitudes (CAS) (β = .36, $p < .001$) was also significant, thus confirming the research hypothesis. A direct positive relationship is indicated; positive high levels of condom attitudes were associated with higher frequency of safer sex behaviors.

The research hypothesis that there was a relationship between self-efficacy for condom use and safer sex behaviors was also supported. Based on the statistical test of the regression coefficient self-efficacy for condom use (CUSES) ($\beta = .148$, $t = 2.053$, $p < .001$) was significant thus confirming the research hypothesis. A direct positive relationship is indicated; higher levels of condom use self-efficacy are associated with higher frequency of safer sex behaviors (see Table 8).

Hypothesis 7 was partially supported since because variables (i.e., income, masculine ideology, condom attitudes, and condom use self-efficacy) were shown to significantly contribute to the frequency of safer sex behaviors. Age and education did not make a significant independent contribution to Bahamian men's frequency of safer sex behaviors. These findings suggest that Bahamian men who practice safer sex behaviors more frequently have lower incomes, endorse lower levels of masculine ideology, have more positive attitudes toward condom use, and have higher perceptions of their ability to use a condom with a partner's approval and capability to persuade a partner to use a condom. Inversely, Bahamian men who practice safer sex behaviors less frequently have higher incomes, endorse higher levels of masculine ideology, have more negative attitudes toward condom use, and have lower levels of ability to use a condom with a partner's approval and capability to persuade a partner to use condoms.

Summary

Four instruments (i.e., MRNS, CAS, CUSES, and SSBQ) were used to examine the relationships between variables of masculine ideology, condom attitudes and self-efficacy for condom use, and safer sex behaviors among a total of 185 Bahamian men, ages 18 to 63. All participants lived in The Bahamas for more than 10 years. One third

of the men (*n* = 59, 32%) were in a current relationship between 1 to 5 years, and a quarter (*n* = 48, 26%) were married in an exclusive relationship, whereas 32 (19%) were not married and having a sexual relationship with more than one partner. More than a quarter (*n* = 57, 31%), had completed high school, and one third (*n* = 61, 33%) had completed college and or technical school.

The majority (*n* = 113, 61%), reported 1 to 10 lifetime sexual partners. Three quarters of the men were employed (*n* = 140, 76%), and about a quarter (*n* = 52, 28%) reported a yearly household income between $20,001 and $40,000 Bahamian dollars. Almost half (*n* = 88, 48%) reported the absence of a biological father in the home growing up. Over two fifths of the participants (*n* = 81, 44%) reported that they had their first sexual experience at age 16, and almost all the participants (*n* = 175, 94%) self-identified as heterosexual. Two-thirds (*n* = 123, 67%) had been tested for HIV. One fifth (*n* = 35, 19%) reported a history of STIs.

The instruments used in this study yielded moderate to high levels of internal consistency for the study sample. Statistical analysis revealed that Hypotheses 1, 3, 4, 5, and 6 were supported and Hypotheses 7 was partially supported. Pearson's correlations indicated that there was a negative relationship between masculine ideology and safer sex behaviors and a positive relationship between both condom attitudes and self–efficacy for condom use and safer sex behaviors (see Table 6). Multiple regression was used to test hypothesis 7 for the independent and combined contribution of the control variables (i.e., age, income, education) and predictor variables (i.e., masculine ideology, condom attitudes, self-efficacy for condom use) to the criterion variable (i.e., safer sex behaviors).

After including the control variables in the analysis, findings confirmed the predictive strength and direction of income, masculine ideology, condom attitudes, and condom use self-efficacy on safer sex behaviors. The results of hierarchical multiple regression demonstrated that masculine ideology, condom attitudes, and condom use self-efficacy together (R^2 = 28%) of the variance in safer sex behaviors after controlling for age, income and education. Income (β = -.15, $p < .01$), masculine ideology (β = -.24, $p < .01$), condom attitudes, (β = .36, $p < .01$), and condom use self-efficacy (β = .14, $p < .01$) were statistically and significantly associated with safer sex behaviors. Age and education did not make significant contributions to safer sex behaviors. The next chapter discusses these findings in detail.

CHAPTER V

DISCUSSIONS AND CONCLUSION

Introduction

The purpose of this study was to (a) demonstrate the relationships among masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors; and (b) identify predictors of safer sex behaviors among Bahamian men. In heterosexual relationships, women are three times as likely to be HIV infected (UNAIDS, 2011). Through the literature review process, it became evident that there is a dearth of studies that have linked masculine ideology, condom attitudes, and condom use self-efficacy and safer sex behaviors. However, Bahamian men's sexual risks for HIV remains underexplored. With Bahamian women at risk of acquiring HIV when compared to their male counterparts, examining safer sex behaviors of males is critical (Futterman, 2005; UNAIDS, 2009). This study creates a foundation for future research about safer sex behaviors among Bahamian men and gives shape to our understanding of the HIV-related risks factors that maybe involved in the transmission of HIV.

This study examined select demographic variables (i.e., age, income, and education) masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors in Bahamian men. Results of this study suggest that four variables may be important in explaining safer sex behaviors among Bahamian men. Three of these variables explained a significant amount of the variance (33%) in safer sex behaviors among Bahamian men. This chapter discusses the findings and explores the implications for health policy, nursing practice, and nursing research.

Demographic Characteristics

The age distribution in the sample closely approximated the Bahamian male population, and findings revealed that the mean age for respondents was 31.95 (*SD* = 11.35). The mean age of the 2010 male population of The Bahamas was 29.1 (BDOS, 2010). The participants in this study represented a more mature age group which may account for some of the findings reported. Therefore, generalization of these findings for the entire male population in The Bahamas is recommended given the possibility that the sample in this study is representative, at least according to age. According to the literature presented in Chapter 1, the population at greatest risk for contracting HIV was individuals who were 25 to 44 years. Moreover, throughout 2009, AIDS-related illnesses remained the leading cause of death among young people ages 25 to 44 living in the Caribbean. As such, in 2009, AIDS-related deaths in the Caribbean were estimated at 12,000 (UNAIDS, 2010).

With regard to relationship status, over one fourth of the participants were currently not in a relationship but self-reported being sexually active within the last 3 months. If this response is indicative of 'single' habitation status, then over a quarter of participants are considered to be 'single'. The majority of the participants were not married whereas, over a third of the participants reported not being married. Whereas, over a quarter of the participants reported they were married. Less than a quarter of the participants did not respond. Regarding the length of current relationship, a third of participants were in a current relationship between 1-5 years. These distributions are similar to the divorce national trends in 2009 (n = 401); the highest average duration of

marriage among divorcees was among couples married for 8 years (n = 122, 30 %,), as compared for those (n = 55, 13%) married 15 – 19 years.

The inclusion criterion to take part in this study was that the participant had to be able to read and speak English. In regard to the highest level of education, only 11 (5.9%) had less than a high school degree; the majority completed some high school, college, and/or university degree. These distributions are similar to the national trends in which BDOS (2010) reported that The Bahamas literacy rate in 2009 stood at 95.8% and may be representative of Bahamian men. Less than a quarter of the participants reported that they earned an associate, bachelors, or graduate degree. This distribution is some what higher than the national standard in which male students accounted for only 14% of the graduates from the College of the Bahamas in 2011. A possible explanation for this difference between the national and study participants' education may be that the since the majority of the RAs in the study were enrolled students in the College of The Bahamas, and they may have recruited more of their peers who were also college students. The educational variable in the study sample may reflect a sampling bias that may have affected the results.

Three fourths of the participants were employed. Of particular interest is the fact that in 2011 in New Providence, the number of women in the labor force exceeded that of men accounting for a little over half of the total (BDOS, 2010). Since there are more reported employed women than there were men, this percentage appears to be over the national percentage. A possible explanation may be that the men in the study felt uncomfortable admitting unemployment or a feeling of inadequacy being unemployed. Almost two thirds of the participants reported an annual salary of more than $10,000 per

year. These distributions are similar to the national trends in which the gross national annual salary in 2011was $9,917 (BDOS, 2010). A little over a tenth of participants reported an income less than $10,000, and a little over three percent reported no income.

Early sexual initiation continues to be a major factor that drives the HIV epidemic. The results from this study demonstrated that a relatively high percentage of Bahamian men initiated sexual intercourse at an early age. This finding highlights the need to focus HIV prevention efforts on very young adolescents and especially boys, before they become sexually active. Previous studies of Figueroa and colleagues (2008) revealed that among Jamaican adolescents, 70% of the male adolescents and a third (35%) of female adolescents reported not using a condom during their first experience of sexual intercourse. With regard to the age of first sexual experience, the majority of men (n = 119, 64%) reported their first sexual experience to be between the ages of 12 to 18. These distributions are similar to the study conducted among Bahamian high school ninth and eleventh grade students; results from the youth survey suggested that 41% were sexually experienced. This number included 32% of sexually experienced youth ages 13-15 years and 57% of sexually experienced youth ages16 years and older of which the majority were males (MOH, 2002).

These findings are consistent with Allen's (2002) findings that boy's early sexual initiation is used to "prove" that they are not homosexual. Allen conducted a survey among nine Caribbean countries and found that 55% percent of boys have sex by the age of 10. Regarding the men in this study, almost all of the participants (n = 174, 94.1%) self-identified as heterosexual, and half of men (n = 93, 50.3%) reported their sexual experiences to be before the age of 16. These findings are also similar to results reported

by Manlove et al. (2006), indicating that the young men in their study who reported they were less likely to use condoms were more than two times more likely to have had their first sexual experience before the age of 16 compared to men whose first sexual experience happened at 16 years or later. Early initiation of coitus may mean that boys have less capability to convince and/or persuade a partner to use condoms. The content of HIV prevention programs in The Bahamas therefore needs to include group sessions where men and boys will be encouraged to share and promote experiences that will decrease the effects of culturally defined standards for male behaviors which may have negative effects on condom use.

Consistent in a culture where absentee fathers and adultery are seen as the norms, almost half of the participants reported growing up in a single family home. Among this number, nine (10%) reported that their father was the sweetheart to his mother, seven (7%) did not know his father identity, and 18 (20%) of their parents were never married to each other. These findings are consistent with Bahamian family households, where the majority of homes are female headed households (BDOS, 2010); that it is normative for fathers to be absent in the homes for various reasons.

Given the cultural nature of this family type structure, it is therefore vital that HIV research and prevention efforts in The Bahamas focus explicitly on strengthening the family structure as an area of HIV-related risk for Bahamian men. The majority of the participants responded to the question in regard to the number of life time sexual partners. However, a small percentage did not respond, possibly since they may have had "too many" partners or "very few". Both extremes may have caused some discomfort and therefore the participants did not respond. More than half of the men however,

reported between 2 and 10 sexual partners during their lifetime. This is not surprising, since the mean age of the men in this study was a mature age (*M* age = 31.95, *SD* = 11.35). Future studies are needed to further explicate the HIV-related risks of multiple partnerships among Bahamian men. Clarifying the types of relationships men have with more than one partner and gaining their perspective of HIV risk within multiple partnerships will greatly aid in the efforts of researchers and policymakers who are attempting to reduce rates of HIV through programs aimed at Bahamian men.

HIV rates are rising among young people in the Caribbean and young women are increasingly being affected. Getting tested and knowing your status is one way to decrease the epidemic. The Caribbean Broadcast Media Partnership on HIV/AIDS teamed up with Scotia Bank Bahamas 2011 on Regional HIV Testing Day. Among the Bahamian men surveyed, almost two thirds of the participants were tested for HIV. These rates of HIV testing are consistent with data from countries where recent national population surveys have been conducted. Reports show that a median of 12% of women and 7% of men report having had an HIV test in the 12 months preceding the surveys, while the median number of people who report having ever tested is 34% for women and 17% for men. Among the number of participants that tested, less than a quarter have had some type of STI. Almost a third of the participants were never tested for HIV, and 2.2% did not respond to this question.

Despite these reported rates of HIV testing, being consistent with international reports it does not indicate a positive response among Bahamians to the HIV prevention work that has been taking place across The Bahamas during the past 25 years. This study clearly documents the gap between perceived and actual HIV status. Similarly,

findings in the 2007 Kenya AIDS Indicator Survey (KAIS) found among 18,000 adults aged 15–64 years, that among HIV-positive respondents, more than half reported they did not know their status either because they were not tested or because they did not receive the results; of the remaining number who thought that they knew their status, more than a quarter mistakenly thought they were HIV-negative, and only 16% actually knew their HIV-positive status. While previous studies has shown that knowledge about HIV in The Caribbean is high (Dale 2002) this research findings reiterate the continued need to reinforce safer sex behaviors and HIV testing messages among Bahamian men and provide ground breaking and effective strategies to improve safer sex practices.

Significant Variables

Masculine Ideology

Analysis of the Male Role Norms Scale (MRNS) revealed that more than half of the participants had high ratings (90 - 115) on a scale score 26 to 59 = low, 60 to 94 = moderate, and 95 to 130 = high scores. There appeared to be a quasinormal distribution on the MRNS scale with the largest group of participants, a little over a third falling into a high rating. The remaining respondents were on the low and moderate end of the scale (i.e., 10.2% low; 32.4% moderate masculine ideology endorsement ratings). Closer examination of the subscales in the MRNS showed that a large percentage, almost half, of participants described high levels of masculine ideology related to "Toughness" and "Status Norms". Not surprisingly, a little over half of participants (n = 101, 54.5%) described higher levels of masculine ideology related antifemininity.

These findings appear to support the Pleck and colleagues (1993) who conceptualized masculine ideology as an internalized endorsement of culturally defined

standards and norms about male behavior. What this meant was that a large majority of participants endorsed cultural standards of male behavior and what it is to be a Bahamian man. In the Caribbean, men are socially expected to be tough, sexually dominant, and risk-takers (White & Carr 2005). The MRNS findings also suggested that a large majority of Bahamian men reported the same status norms, toughness, and antifemininity ideology, consistent with Allen (2002) findings that boys must "prove" that they are not homosexual. These findings reinforce the need for HIV prevention measures to address the cultural standards that define what it is to be a man in The Bahamian society and underscore the need to reinforce safer sex behaviors strategies (i.e. barbershop talks, walk about to basketball courts, formalize workshops) to include open communication about condom use and STIs and consistent condom use among men.

Condom Attitudes

Descriptive results for the Condom Attitudes Scale (CAS) also suggested a quasinormal distribution, with more than half of participants reported having “low” (i.e., negative) attitudes toward condom use. Almost half of the participants reported negative attitudes toward perceived risks and self-control to safer sex behaviors. It is critical that prevention programs address the cultural factors that influence negative condom use among Bahamian men in order to be effective at reducing the current HIV infection rate in The Bahamas.

Data that could have potential benefit in understanding perceived risks were from responses to the question related to perceived HIV risks. Closer examination of the items making up the CAS showed, however, that more than half described negative attitudes toward condom use to “perceived risks”. Of concern was that almost three fourths of the

participants mostly agreed to "*I would only use a condom if one was available*". If this response was indicative of condom use, then almost three fourths of the participants did not perceive themselves as being at risks of HIV transmission and practiced unsafe sex behaviors. These findings reinforce the need for HIV prevention measures to address HIV related sexual risks and underscore the need to reinforce positive attitudes towards condom use behaviors. Since a majority of participants reported being 35 of age or older and were likely to have had more than two lifetime partners, it is possible that their complacency in sexual experiences may have contributed to their unsafe practices. Therefore, it is possible that condom use patterns are different for older samples. Perhaps as men mature and transition into adulthood, by experiencing multiple sexual relationships, they become relaxed in his ability to insist on condom use and consequently, may develop negative attitudes towards condom use.

Another indication of negative attitudes toward condom use was revealed in the reported "self-control". An overwhelming majority did not practice self-control related to condom use. Lack of self-control before and during sexual intercourse could to lead to HIV risks transmission. Of concern were more than half of the participants strongly disagreed with "*I am concerned about catching AIDS or some sexually transmitted disease*". If this response was indicative of condom use, then a majority of the participants did not practice self-control and were at risk of HIV transmission.

Self-Efficacy for Condom Use

A quasinormal distribution was found with more than two thirds of participants who responded reported having low levels of perception of their abilities to use a condom with a partner's approval and/or capabilities to convince and or persuade a partner to use

condoms. The present study found that the remainder of those who responded described "moderate" (n = 51, 27.5%) to "high" (n = 9, 4.9%) levels of perception of their abilities to use a condom with a partner's approval and/or capabilities to convince and or persuade a partner to use condoms. These low scores indicate substantially low perceptions of the participants' self-efficacy for condom use.

If this response was indicative of condom use, then the majority of participants is at risk of HIV transmission and may practice unsafe sex behaviors. Despite the majority of the participants reporting "*I feel confident in my ability to persuade a partner to accept using a condom when we have intercourse*" and more than three fourths reporting "*I feel confident in my ability to use a condom correctly"*, of concern was the finding that more than half of the participants strongly agreed with "*I would feel embarrassed to put a condom on myself or my partner*". If this response was indicative of condom use, then half of the participants were at risk of HIV transmission. Since Caribbean men are socially expected to be tough, sexually dominant, and risk-takers (White & Carr 2005) and are expected to have sex with multiple female partners, results indicate the need for more empirical studies to further describe condom use self-efficacy and safer sex behaviors among this group of Caribbean men.

Safer Sex Behaviors

Consistent with results from previous studies, findings from both bivariate and multivariate analyses indicated that Bahamian men's, masculine ideology, condom attitudes, and condom use self-efficacy were predictive of safer sex behavior and explained 33% of the variance for safer sex behaviors. These results suggested that

income, masculine ideology, condom attitudes, and condom use self-efficacy were predictors of safer sex behavior among Bahamian men.

Bahamian men in this study may be at risk of acquiring HIV. Given the results of numerous empirical research studies with various cultures, it was not surprising that masculine ideology would be associated with safer sex behaviors. The finding regarding the association between masculine ideology and safer sex behaviors would be helpful in the process in identifying cultural strength, opportunities, and constraints among this target group of Bahamian men. There is a dearth of literature that has documented the relationship between masculine ideology and safer sex behaviors. These findings supported the hypothesis that high levels of masculine ideology endorsements play an important role in predicting safer sex behaviors and may play a role to financial abilities and cultural perceptions of what it is to be a man.

For example, a study by Kongnyuy, Wiysonge, Mbu, Nana, and Kouam (2006) in the Cameroon found that wealthy men were more likely than less wealthy men to have engaged in sexual behaviors that put them at risk for acquiring HIV. These study findings again highlighted the need for future studies examining the sexual practices of men during heterosexual relationships and for HIV prevention programs and messages to motivate men to endorse positive attitudes towards condom use. HIV prevention education can be included in boys' music clubs, after school Junior Achievement programs and posters to be displayed at basketball games. More importantly mothers should give their sons instructions that include positive condom messages supporting standards of what it is to be a man in The Bahamian culture.

Findings from the bivariate and multivariate analyses also supported the relationship between condom attitudes and safer sex behaviors. Finding implied that participants with negative attitudes toward condom use were more likely to have a lower frequency of safer sex behaviors. The findings also highlighted a potential risk for HIV infection for several participants. There were sexually active individuals who reported having sex with more than one partner but who were not practicing safer sex behaviors. HIV prevention education such as "know your status", "strengthening the family structure" and family planning" may help to decrease negative attitudes toward condom use and may help to increase the use of condoms among Bahamian men. A major issue to be addressed by public health officials would be how to increase awareness in order to enhance appropriate perception of HIV risk among Bahamian males, especially among those with negative attitudes toward condom use.

Consistent with the literature, self-efficacy for condom use was a major contributor to safer sex behaviors. There was a relationship between condom use self-efficacy and safer sex behaviors. A large majority of men had a low level perception of their abilities to use a condom with a partner's approval. People who perceived low levels of self-efficacy are less likely to use condoms. This finding supported a suggestion that the use of condoms may be driven by different reasons, such as embarrassment at purchase, a belief that they reduce sensitivity and pleasure, condom self-efficacy, and/or age. Further research would be needed to confirm if embarrassment or reduced pleasure were reasons for lack of safer sex practices for a larger percentage of Bahamian men. Of note, however, it may be that the men did know the benefit of using

condoms for HIV prevention and did not practice safer sex. This finding is of importance from a public health perspective and a critical direction from nursing research.

A relationship between income and safer sex behaviors was also reported. Participants who reported higher income were less likely to use condoms than participants who reported less income. These findings partially supported the hypothesis that income, masculine ideology, condom attitudes, and condom use sex efficacy play important roles in predicting safer sex behaviors. Results indicated that regardless of socioeconomic status, the need for safer behaviors should be a key component, inclusive of training on condom supply sources, storage, proper use, and disposal and on how to persuade sexual partners who refuse to practice safer sex behaviors in culturally sensitive HIV prevention programs targeted toward Bahamian men.

Relationships Between Major Study Variables

Masculine Ideology and Condom Attitudes

A significant negative correlation was found between masculine ideology and condom attitudes (r = -.163, p < .05). Previous studies directly linked masculine ideology to negative consequences (Ojeda et al., 2008; Vitellone, 2000; Whitehead, 1997). The results of this study regarding negative attitudes toward condoms support findings from other studies in the literature (Noar & Morokoff, 2002; Pleck et al., 1993). Pallonen and colleagues (2009) used nine statements to assess negative aspects of condom use among sexually active, heterosexual, African-American crack cocaine smokers (N = 366). As in previous studies, attitudes were significantly related to condom use, F (8, 702) = 3.64, p < .001.

Despite the significant relationship between masculine ideology and condom attitudes, a causal relationship cannot be deduced. However, the finding suggests that the Bahamian men with high levels of masculine ideology endorsement were more likely to have a more negative attitude toward condom use than men with lower levels of masculine ideology endorsement, consistent with the research hypothesis. The possible reason for this result is that in the Caribbean, men are socially expected to be providers, baby makers and sexually dominant (White & Carr 2005). Using a condom during sexual experience may not be perceived as an action of a 'real' man. Masculine ideologies of what it is to be a man may increase the risk of HIV transmission.

Consequently, Bahamian men may engage in unsafe sexual behaviors as a result of endorsing high levels of masculine ideology of what it is to be a man in The Bahamian context. This finding implies that Bahamian men can benefit from HIV education community programs centered on Bahamian men's negative attitudes toward condom use. Men in the groups will be encouraged to share and promote experiences that will decrease the effects of culturally defined standards for male behaviors which may have negative effects on condom use.

Masculine Ideology and Condom Use Self-Efficacy

Inconsistent with the results of previous studies (DiIorio et al., 2000; Farmer & Meston, 2008), Bahamian men masculine ideology was not found to be associated with condom use self-efficacy (r = -.015, p > .05). Alarape and colleagues (2008) explored self-efficacy among 183 Black African male university students (M age = 24.8 years; 82.5% single) and found that the men reported a significant level of self-efficacy (p < .05) among the students who reported using condom. The results of this study were

similar to findings of Fernandez-Esquer and colleagues (2004) who linked condom use self-efficacy to condom use with differences in self-efficacy for condom use by gender ($F = 4.56$ $df = 2$, $p = .03$). In a sample of 152 Latino/as (men = 50; women = 102), the women in the study reported higher condom use self-efficacy scores compared to men. When asked, "*Can you stop and look for a condom if you or your partner is already sexually aroused*?" Results indicated that the women 78% reported higher self-efficacy compared to men 59%.

Masculine Ideology and Safer Sex Behaviors

According to the results of this study, a negative relationship was found between masculine ideology and safer sex behaviors. The finding suggests that Bahamian men with high levels of masculine ideology endorsement were less likely to practice safer sex behaviors than men with lower levels of masculine ideology endorsement, consistent with the research hypothesis. The results of this study implied negative attitudes towards safer sex behaviors and support those of other studies in the literature that directly linked masculine ideology to safer sex behaviors (Essien et al., 2005; Figueroa et al., 2005; Kennedy & Roberts 2009). In a study with 101 men and 199 women ages 18-24 in northern KwaZulu/Natal province, Harrison and colleagues (2006) found that the men in the study with less masculine norms were more likely to engage in consistent condom use than men with more masculine norms.

Despite the significant relationship between masculine ideology and safer sex behaviors, a causal relationship cannot be deduced. This finding implies that policy makers should consider designing programs and interventions among male youth to promote gender equality. Bahamian men can benefit from HIV prevention programs

centered on Bahamian men's negative attitudes toward condom use stemming from high endorsement levels of masculine ideology. Men in the groups will be encouraged to share and promote experiences that will decrease the effects of culturally defined standards for male behavior in a Bahamian context, which may promote condom use.

Condom Attitudes and Safer Sex Behaviors

Consistent with previous studies (Ackerman & de Klerk, 2002; Brooks et al., 2009; Charnigo et al., 2010), a positive relationship was found between condom attitudes and safer sex behaviors in Bahamian men. As condom attitudes increased, safer sex behaviors also increased. A substantial body of literature has documented fairly consistent associations between condom attitudes and reported condom use. Men and women with negative attitudes toward condom use were found to be more likely to not use condoms during sexual intercourse (Ackerman & de Klerk, 2002; Brooks et al., 2009; Charnigo et al., 2010). Consistent with these findings, Pulerwitz and colleagues (2002) found the respondents' attitude toward condom use was positively associated with safer sex behaviors among 388 female patients at an urban community health clinic in Massachusetts.

As anticipated, the finding suggests that the Bahamian men with a positive attitude toward condom use were more likely to have a greater frequency of safer sex practices than men with negative attitudes toward condom use, consistent with the research hypothesis. Since the men in this study reported negative attitudes toward condom use, it is more likely that they will not use condoms during sexual intercourse. Despite the relationship between condom attitudes and safer sex behaviors observed in this study, causality cannot be established. However, condom attitudes may be an

important factor that policy makers should consider when developing programs aimed at modifying safer sex behaviors among Bahamian men.

Condom Attitudes and Self-Efficacy for Condom Use

A positive relationship was found between condom attitudes and self-efficacy for condom use. As condom attitudes increased, so did self-efficacy for condom use among Bahamian men. The finding suggests that Bahamian men with a positive attitude toward condom use were more likely to have a greater perception of their ability to use a condom with a partner's approval than men with negative attitudes toward condom use, consistent with the research hypothesis. Since men in this study reported negative attitudes toward condom use, it is more likely that they will have a lower perception of their ability to use a condom with a partner's approval. Despite the significant relationship between condom attitudes and self-efficacy for condom use in this study, causality cannot be established.

The results of this study support findings of other studies in the literature. Findings from studies have suggested that condom use self-efficacy is a significant predictor of safer sex behaviors (Gabler et al., 2004; Peltzer, 2000; Sayles et al., 2006; Thato et al., 2003). Self-efficacy for condom use was found to be an important determinant of condom use among both 146 female and 60 male first year psychology students (*M* age = 20.9 years; ages 17-34 years) (Peltzer, 2000). Findings suggested that self-efficacy for condom use was positively related to condom use intentions among the participants. Furthermore, among a sample of 3,519 male and 3,890 female South African youths ages 15–24 years, Sayles and colleagues (2006) assessed self-efficacy for condom use. Specifically, findings suggested that not using condoms by both men and women was associated with low condom use self-efficacy. Findings suggested that

healthcare providers and policy makers should design HIV prevention messages that that link safer sex practices to condom use self-efficacy with a concentration on promoting perceived HIV risk and sexual self-control.

Self-Efficacy for Condom Use and Safer Sex Behaviors

A positive relationship was found between self-efficacy for condom use and safer sex behaviors. The results demonstrated that as self-efficacy for use condom use increase, safer sex behaviors also increased. The results of this study support findings of other studies in the literature and supports the belief that self-efficacy may be lined to more consistent condom use. This study is congruent with the literature which suggested that condom use self-efficacy is a significant predictor of safer sex behaviors (Alarape et al., 2008; Mausbach et al., 2009; White, 2004). Self-efficacy for condom use was the only variable with a significant relationship with frequency of condom use in a study conducted by White (2004) with a sample of Jamaicans (i.e., 1,208 males; 961 females; ages 15- 19). Similarly, Mausbach and colleagues (2009) found that increases in self-efficacy significantly predicted increased condom use ($p = 0.008$) among 924 Mexican SW ages 18 years and older.

In a study with 183 Black African male university students (*M* age = 24.8 years; 82.5% single), Alarape and colleagues (2008) also found that condom self-efficacy played a significant role in reported condom use among the students who reported using condom. The men in this study scored low on the condom use self-efficacy scale which suggests that the Bahamian men have a low perceptions of their abilities to use a condom with a partner's approval and/or capabilities to convince and/or persuade a partner to use condoms and do not report a high frequency of safer sex practices, consistent with the

research hypothesis. Despite the relationship between self-efficacy for condom use and safer sex behaviors in this study, causality cannot be established or inferred. It is important that nursing researchers consider this factor when design HIV prevention programs that focus on the reduction and elimination of unsafe sexual behaviors among Bahamian men.

Contributions of Select Demographic Characteristics, Masculine Ideology, Condom Attitudes, and Self-Efficacy for Condom Use to Safer Sex Behaviors

It was predicted that select demographic characteristics (i.e., age, income, education), masculine ideology, condom attitudes, and self-efficacy for condom use would predict safer sex behaviors among Bahamian men. Results of hierarchical multiple regression analyses showed that masculine ideology, condom attitudes, and condom use self-efficacy were significant predictors of safer sex behavior and explained 33% of the variance in safer sex behaviors. Characteristics not associated with safer sex behavior in the multiple regression analysis included age and education. Therefore, the results of this study provided partial support for Hypothesis 7.

Age was not found to be related to safer sex behaviors in the multiple regression analysis, although the Pearson correlation coefficient was significant. The results may be associated with the mature age range in the study, the length of time in a relationship and safer sex behaviors, or its significant correlation with income , since in general, older men have higher incomes. Studies have suggested that the primary reasons for failure to use condoms ranges from embarrassment at purchase (Bell, 2009), a belief that they reduce sensitivity and pleasure (Carballo-Diéguez et al., 2011), age (Davis et al., 2001), and education (Szwarcwald et al., 2011).

Studies have also reported that older participants reported higher levels of condom use among both men and women than their younger counterparts (Ku et al., 2000). Another study conducted by Davis and colleagues (2001) found that older men and women reported lower levels of condom use than their younger counterparts. Thato et al. (2003) conducted a study among a sample of 25 heterosexually active Thai vocational male and female students and found that age was not related to condom use in the sample. This remains an important area for future research. The results of this study suggest the need for additional research to further examine the relationships between age and safer sex behaviors as studies have determined that age may influence sexual behavior.

A nonsignificant relationship between education and safer sex behaviors was also found in the multiple regression analysis, although Pearson's correlation was significant. This indicated the need for more empirical studies about this relationship. An explanation for this result can be that since the majority of men reported a college and/or technical degree, these men may also be more likely to want to be perceived as masculine versus "nerdy" or the significant relationship between educational level and income in this study. Typically, more educated men have higher incomes. In Caribbean culture, men are socially expected to be risk-takers (White & Carr 2005) regardless of socioeconomic or educational status. Despite the findings in this study, low educational level has been linked to low regular condom. Szwarcwald and colleagues (2011) examined HIV-related risky practices among 35,432 Brazilian young men (ages 17-20 years). Findings showed regardless of partner type (i.e., fixed, casual), there was low

regular condom use. However, low consistent condom use was found primarily men with poor educational levels.

Implications for Nursing

The findings identified several necessary steps needed to address the gap between factors that influence and/or predict safer sex behaviors among Bahamian men. The results of this study contribute to the understanding of safer sex behaviors among Bahamian men and have several important implications for nursing practice, research and health policy. Moreover, this study has the potential to highlight the factors that may contribute to the devastation of HIV in the Caribbean since it examined several relationships among age, income, education, masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors. To ensure culturally appropriate and competent interventions and help advance the knowledge base for nursing practice and research, these factors should be incorporated in the design of HIV prevention programs that address safer sex behaviors and, most importantly, guide the efforts of policy makers in the design of HIV intervention strategies.

One major issue for preventive HIV program policy makers is the reduction of heterosexual transmission of HIV through the promotion of consistent condom use (Bowleg, 2004; Seal & Ehrhardt, 2004). Therefore, this study is timely since it examined concepts and variables that may contribute to Bahamian men's safer sex behaviors. Based on the cultural relevance of the findings this study (i.e., high levels of masculine ideology, negative attitudes toward condom use, low levels of self-efficacy, and low frequency of safer sex behaviors), it is important that policy makers be knowledgeable when developing HIV prevention programs to address Bahamian men's

sexual behavior. Moreover, health care providers and nurses must be aware of these findings to consider these cultural findings when providing and promoting men's health.

It is hoped that policy makers will lobby for funding and address issues related to HIV program development in The Bahamas. One way to do this will be in the area of focus groups. Focus groups among Bahamian men should be funded and implemented to explore The Bahamian man's views and beliefs regarding masculine ideology, condom attitudes and condom use self-efficacy in the context of HIV prevention. This approach will help to understand and identify what factors actually influence safer sex behaviors and take into account cultural and other significant differences among the heterosexual adult Bahamian male population. Focus groups can be of a formal or informal nature (i.e. barbershop talks, walk about to basketball courts).

Health Policy

The national adult HIV prevalence in The Bahamas is estimated to be 3.1% (UNAIDS, 2010). The spread of HIV is a significant threat to the Bahamian social, health, and economic sectors and requires Bahamian healthcare policy makers to develop policies that may be used to eliminate the health problems and disparities associated with the HIV pandemic. While addressing the opening of a workshop organized by the AIDS Foundation of The Bahamas on September 22, 2009, Health Minister Dr. Hubert Minnis proclaimed in a statement that "the HIV/AIDS pandemic continues to threaten the economic, national, and social development of our country . . . " (Maura, 2009). There is no doubt that a study of this nature is necessary to guide the development of health policies.

To date, there is no study reported on sexual risks behaviors in the context of safer sex behaviors among Bahamian men. The results from this study address the gap in the literature and can be used to assist policy makers in becoming culturally competent and congruent with men's' masculine ideology, condom attitudes, and condom use self-efficacy in the context of safer sex behaviors. Therefore, policy makers will need to be knowledgeable, culturally sensitive and act as role models when addressing men in the community. Policy makers can reach Bahamian men through advertising (i.e., television, radio and billboards), visiting barber shops and basketball courts and lobbying for the integration of culturally sensitive sex education courses within the educational system (secondary, vocational and tertiary).

Nursing Practice

Worldwide, unprotected sex practices have been reported by the majority of HIV-infected women (UNGASS-AIDS, 2009). The source of their infection has been reported to be from male sex partners (Futterman, 2005; UNAIDS, 2009). The empirical knowledge obtained from this study can be used to assist nurses identify potential barriers and or facilitators associated with safer sex behaviors among Bahamian men during history taking and health examinations. Health professionals should design health history forms and distribute culturally appropriate information packets within their practice. To promote safer sex behaviors, educational materials should be designed to achieve a change in condom use behavior among Bahamians. Moreover, every health care facility should incorporate the assessment of Bahamian men's safer sex practices in regular or annual health physicals. To educate Bahamian men regarding safer sex behaviors, it is

necessary for providers to engage in discussion with Bahamian men regarding specific risk behaviors that are commonly practiced among this cultural group.

Nursing Research

A research gap exists regarding heterosexual Bahamian men's HIV sexual risks behaviors. This study was conducted to answer questions regarding potential factors influencing safer sex behaviors among Bahamian men. For this study, select demographic variables, masculine ideology, condom attitudes, and condom use self-efficacy were explored for their association with and contributions to safer sex behaviors. Since these variables were never tested before among Bahamian men, this study will be important in providing information that can be used to develop evidenced-based culturally sensitive HIV education programs for nurse educators and nursing students. This approach will provide a baseline for nurse educators to include culturally sensitive material in the revision of nursing school curriculum.

Limitations of the Research

Sexual expression in among Caribbean men is complex and dynamic and maybe similar to practices of African American and other Black men in the United States (White & Carr 2005). However, there are several considerations which must be given to this study, some of which restrict the generalizability of the findings. First it was based only on self-reported data from Bahaman men living in The Bahamas for more than 10 years, ages 18 years and older. The study participants were also from primarily urban communities, in New Providence and study findings may not be applicable to Bahamian men who live in more rural settings (i.e. other less developed communities in The Bahamas). Therefore, generalization of these findings for the entire male population in

The Bahamas is not recommended given the possibility that the sample in this study may not be representative, at least according to location.

Despite the significant relationships among the variables, causal relationships cannot be deduced since data were collected at one point in time. This cross-sectional design did not allow for causal relationships to be tested. Moreover, the sample size was moderate but led to detection of significant correlations. A larger sample would have been better in terms of validity and reliability (Fraenkel & Wallen, 2009). A correlational study across different islands in the Caribbean would support differences in terms of cultures pertaining ideology, attitudes, and sexual behaviors regarding HIV. Men of African and Caribbean descent should be included in the generalizability of these research results with caution.

Next, the participants in this study represented the median age group within The Bahamas and may account for some of the findings reported. However, the results of this study can be generalized only to Bahamian ages 18 years and older. Younger males may have a different influence on the variables examined in this study. A third consideration is, this study examined the sexual behaviors using self-reported measures which are not always accurate. Therefore, recall bias and social desirability are factors that may have affected the results of this study. Sexual behaviors are known to be a sensitive and socially undesirable topic among people living in The Caribbean. The self-reported data reported by The Bahamian men could have represented an over- and or underreporting of sexual behaviors.

Finally, although 185 Bahamian men 18 years and older participated in the study, in three of the analyses the final sample consisted of only 147 participants. For this

study, a medium effect size of .30 for correlations and 0.15 for multiple regression following Cohen's conventions with power set at .80 to show significant differences ($p <$ 0.05). Thus there was the potential for Type 2 error, as some differences may not have been detected due to a lack of power. It is possible that a larger sample would have generated sufficient power to detect significant differences in the analyses.

Concluding Statement

Despite the challenge to reduce HIV infection among heterosexuals, all is not lost in the fight against HIV. Since no cure for HIV is currently available, safer sex behaviors are one way to reduce infection. The aim of this study was to examine select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, condom use self-efficacy, and safer sex behaviors among Bahamian men. The results of this study suggest that four variables may be important in explaining over one fourth of the variance in safer sex behaviors among Bahamian men.

Therefore, an effective HIV prevention strategy must consider these specific variables that may contribute to perpetuating the transmission of HIV rather than focusing only on the use of safer sex behaviors. It is apparent from the findings of the current study that more studies are needed to provide evidence as to achieve a change in safer sex behaviors among Bahamian men. This study provides a baseline for future research studies that would examine HIV prevention programs for Bahamian men. Future studies should include more independent variables to examine the significance of safer sex behaviors among Bahamian men.

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APPENDICES

APPENDIX A

REQUEST FOR PERMISSION FROM BUSINESSES

18 February 2011

BUSINESS
[Institution]
[Address 1]
[Address 2]

Dear Sir or Madam:

My name is Theresa Adderley, and I am a Doctoral Student at Florida International University, Miami, FL, USA and also an Assistant Professor in the School of Nursing at College of The Bahamas. Currently, I am conducting a dissertation research study about Bahamian men health behaviors. Guided by a research committee of professors at Florida International University, this research seeks to examine factors that influence Bahamian men's health behaviors, and it has been reviewed and approved by the Institutional Review Board at Florida International University. Therefore, if I can determine these important factors, I can use the findings of this study to inform healthcare providers and policy makers in the development of culturally sensitive prevention interventions for Bahamian men.

I would like to administer a questionnaire to men working at your establishment [*participating establishment*]. In order for the research to gather information on Bahamian men ages 18 years and older, I will need a large number of Bahamian men to complete the questionnaire. Therefore, I would like to ask for your help. Specifically, I would like your permission to post flyers informing about the purpose of the study in strategic locations identified by you within businesses and to administer the questionnaire at your location. I feel it would be more effective to hand out the questionnaires in person rather than to mail or drop off to individual employees. The questionnaire takes at least 25 minutes to complete. With your permission, I would like to administer the questionnaire at your convenience throughout the work day during the month of August through mid-September.

Finally, I anticipate that the research project will be completed by March 30th, 2011. Thank you in advance for your participation and cooperation in helping me complete this important study.

Theresa Adderley
College of The Bahamas
School of Nursing
(242) 325-5551

APPENDIX B

RESEARCH FLYER

Volunteers Wanted for a Research Study

Florida International University

"Bahamian Men's Health Practice Study"

PURPOSE: The purpose of this study is to examine factors that influence Bahamian men's health behaviors

ELIGIBILITY:

1. Bahamian men 18 years and older
2. Must be able to read, speak, and write English
3. Sexually active within the last 3 months

BENEFITS:

To promote safer sex practices among Bahamians

TIMELINE:

1. Study Begins - September 18th , 2011
2. Study Ends - October 18th, 2011

CONTACT:

To learn more about how you can participate in a 25 minute session of this research, call (242) 325-5551 / email: defibrillatebahamas@yahoo.com. This research is conducted under the direction of doctoral student Theresa Adderley, School of Nursing, Nassau Bahamas.

APPENDIX C

RESPONSE LETTER

THE COLLEGE OF THE BAHAMAS

ESTABLISHED 1974

DIVISION :
Your Reference :
Our Reference :

March 22, 2011

Dear Colleague,

Please be advised that your request for the use of a classroom for your research study during the week of April 8th – May 3rd, 2011 is approved.

Please make the request in the log book as to inform security officers of the specific dates and times. Based on the availability, you may use either the Conference Room 110 and/or the Common Room.

Sincerely,

Michel D. Cartwright (Mrs.)
Administrative Assistant
School of Nursing and Allied Health Professions

●Oakes Field Campus	●P.O. Box N- 4912 Nassau, Bahamas	●Tel. (242) 323-8550/2	●Fax 326-7834
●Grosvenor Close Campus	●P.O. Box N- 4912 Nassau, Bahamas	●Tel. (242) 325-5551/2	●Fax 328-0284
●Moss Road Centre	●P.O. Box N- 4912 Nassau, Bahamas	●Tel. (242) 325-5714	●Fax 326-7834
●Freeport Campus	●P.O. Box F- 42766 Freeport, Grand Bahama	●Tel. (242) 352-9761	●Fax 352-6167

APPENDIX D

LETTER OF SUPPORT

Paulette N. Cash
Princess Margaret Hospital
Nassau Bahamas
P.O. Box N3730
E-mail: pcash@pmh.phabahamas.org
Pcash2507@yahoo.com
Phone: (242) 3222861 ext 2462

March 25th, 2011

Dissertation Chair
Florida International University
Miami, Florida

RE: Commitment of Support

I am pleased to support the research proposal of Mrs. Theresa Adderley, a doctoral student at your university. Her study titled *"BAHAMIAN MEN'S SEXUAL RISKS FOR HIV/AIDS" is a* most timely research project with the potential for significant benefits both nationally, regionally and internationally.

I have reviewed the Proposal, including cover letters for businesses, the consenting and recruiting processes, and promotional flyer. I have also confirmed with Theresa Adderley that she will seek approval from the Florida International University (FIU) Review Board prior to recruitment efforts. I therefore lend my enthusiastic support.

I look forward to collaborating with Mrs. Theresa Adderley with regard to this initiative and wish her success.

Sincerely,

_____

Paulette Cash, PhD
Nursing Research Coordinator
Princess Margaret Hospital
Member – University of the West Indies/Public Hospitals Authority
Ethics & Research Committee
Nassau, The Bahamas

APPENDIX E

TREATMENT AND SOCIAL SERVICES

LOCAL COUNSELORS AND SERVICES TELEPHONE NUMBER

LOCAL COUNSELORS ADDRESS	TELEPHONE NUMBER EMAIL
DIRECTOR OF NATIONAL AIDS PROGRAMME DR. PERRY GOMEZ Royal Victoria Gardens P O Box N 3730	323-5968 Or Call 328-1532
HEALTH EDUCATION DIVISION Capital House Bldg Virginia & Augusta St P O Box N 3730	322-1025 Or Call 322-1187 E-mail: healtheducationdivision@bahamas.gov.bs
OUTREACH CENTRE A V.B. Munnings Building Pitt Road	322-7121 Or Call 322-7125
OUTREACH CENTRE B/D National Insurance Building Wulff Road	356-9391 Thru 356-9394
OUTREACH CENTRE F Bernard Road Fox Hill	364-2200
HEALTH SOCIAL SERVICES Sandilands Rehabilitation Centre	364-9670 Or Call 324-688
FAMILY SERVICES National Insurance Building Robinson Rd	502-2817

APPENDIX F

IRB APPROVAL LETTER

FIU | FLORIDA INTERNATIONAL UNIVERSITY

Office of Research Integrity
Research Compliance, MARC 270

MEMORANDUM

To:	Theresa Adderley
CC:	File
From:	Jada Dixon, MPH, IRB Coordinator
Date:	October 10, 2011
Proposal Title:	"Bahamian Men's Sexual Risks for HIV"

The Institutional Review Board at Florida International University has reviewed your submission for the use of human subjects and it has been **Approved Pending** the following modification(s):

- Please ask Dr. Kulwicki to provide her signature on page 2 of the Form-A application.
- Please provide the FIU IRB Proposal for review. Note, the Office of Research Integrity is in receipt of the UGS 5-Page proposal. For guidance, please go to: http://research.fiu.edu/forms/compliance/irb/IRBproposalFormat.doc.
- Please revise the start date on the Form-A application as it has already expired.

The above revision(s) need to be completed and returned directly to the IRB Office at MARC 270 (Attn: Jada Dixon). There is no need to resubmit your entire submission packet. Please only resubmit the documents that have been modified and/or added. The revision packet must have a cover letter attached to the top, which indicates your name and the title of your project, so we will be able to match the revision(s) with the appropriate protocol. The cover letter should also briefly summarize the changes that have been made. You **may not** commence your research before receiving final approval. Information regarding the use of human subjects can be found at the FIU IRB website: http://research.fiu.edu/compliance/compliance.html.

APPENDIX G

"BAHAMIAN MEN'S HEALTH STUDY"

Oral Script for Questionnaire Distribution

My name is _____. Theresa Adderley a Doctoral Student at Florida International University , Miami Florida and also an Assistant Professor in the School of Nursing at College of The Bahamas is currently conducting a dissertation research on a study about Bahamian men's health behaviors. Guided by a research committee of professors at Florida International University, this study seeks to examine factors that influence Bahamian men's health behaviors.

Each of your packets contains a cover letter and a questionnaire. Please do not open the packet until you are instructed. The purpose of this research is to examine factors that influence Bahamian men's health behaviors and you are asked to assist by completing a 25-minute questionnaire. Your participation is entirely voluntary. If you decide to participate, you will need to read the cover letter before you begin to complete the questionnaire. If you decide not to participate, please return the form to the research assistant unmarked.

You may now open your packet and look at the questionnaire. This is not a test. However, as you can see, the questionnaire consists of 934 statements and 15personal questions. For each of the statements, you are to circle your response on the number of your choice. For some of the personal questions you are to fill in the blank or check the appropriate box that best describes you. There is no right or wrong answer to these statements. Please do not to place personal identifiers such your name or contact information on the questionnaire.

This study does not pose any known risks for your involvement in completing the questionnaire. However, if you change your mind midway through the questionnaire, you may feel free to stop at any time. In addition, you may feel free to contact the researcher at any time. Finally, are there any questions?

If you would like to consider participating or have already decided to participate, please take out the cover letter. Please read the cover letter thoroughly. Once you have finished reading the cover letter, you may begin completing the questionnaire. By completing the questionnaire, you have given your consent to participate in the study. You will not be paid to participate in the study, however, you will be offered a $5 hair cut coupon redeemable at a local barber and beauty supply store as a compensation for your time.

Again, if you prefer not to participate, please leave the questionnaire in the envelope unmarked. After you have completed the questionnaire, please recheck the packet to make sure that you gave only one response for each statement, circled each response clearly, and left none blank. Next, seal the completed questionnaire in the envelope provided and drop it into the closed box which is provided by the research assistant. The box will be opened only after five or more sealed envelopes are inside, and only the principal investigator and research assistants will have access to the questionnaires.

Please feel free to take the cover letter with you. Are there any questions? Thank you in advance for your participation in this study. You may begin reading the cover letter.

APPENDIX H

Verbal Consent to Participate

ADULT VERBAL CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Bahamian Men's Health Practices

Hello, my name is Theresa Adderley. You have volunteered to be in a research study to examine factors that influence Bahamian men's health behavior. The purpose of this study is to promote Bahamian men's health. If you decide to participate in this study, you will be one of 130 people in this research study. Participation in this study will take approximately 25 minutes of your time. If you agree to be in the study, I will ask you to do the following things:

1. You are instructed not to place personal identifiers such your name or contact information on the questionnaire.
2. You are asked to carefully follow the printed instructions, read each question thoroughly, and answer each question completely and honestly.
3. To further ensure anonymity, your completed questionnaires are to be placed and sealed into the envelope provided, then dropped into the closed box.

There are no foreseeable risks or benefits to you for participating in this study. It is expected that this study findings will benefit society by informing healthcare providers and policy makers about Bahamian men health practices. In addition, there is no cost or payment to you. However, you will receive a $5.00 hair cut coupon redeemable at a local barber and beauty supply store as an incentive for your participation in the study. You will not be penalized if you refuse to participate or decide to stop filling out the questionnaire.

If you have questions while taking part, in this study please stop me and ask. You answers will remain anonymous. In any sort of report we might publish, we will not include any information that will make it possible to identify you as a participant. Research records will be stored securely, and only the researcher team will have access to the records. Your data may also be reviewed for audit purposes by authorized University or other agents who will be bound by the same provisions of confidentiality.

If you have questions for one of the researchers conducting this study, you may email or call me Theresa Adderley, researcher at defibrillatebahamas@yahoo.com, 242-325-5551. If you would like to talk with someone about your rights of being a participant in this research study or about ethical issues with this research study, you may contact my dissertation chair Dr. Anahid Kulwicki at 305-348-7718.

Your participation in this research is voluntary, and you will not be penalized if you refuse to participate or decide to stop. Do you consent to participate in this research? If your response is yes, once you complete the questionnaire, we will take that as your consent to participate in the study.

APPENDIX I
Cover Letter

"A Study of Bahamian Men's Health Behavior"

Dear Participant,

My name is Theresa Adderley, and I am a Doctoral Student at Florida International University, Miami, Florida and also an Assistant Professor in the School of Nursing at the College of The Bahamas. Guided by a research committee of professors at Florida International University, this research study seeks to examine factors that influence Bahamian men's health behavior. Your participation will require approximately 25 minutes of your time to complete a questionnaire regarding some demographic data and beliefs about factors that influence sexual behavior among Bahamians.

All data and information obtained are confidential, and your specific responses will be analyzed in a way that will keep your responses completely anonymous. Your participation in this study is voluntary, and you may decline to participate in answering the questions at any time. Your participation in this study is valuable, as findings of this study will be used to promote men's health practices among Bahamian men. In addition, you may feel free to email or call (defibrillatebahamas@yahoo.com, 242-325-5551) or my dissertation chair Dr. Anahid Kulwicki, 305-348-7718 with any questions or comments concerning this study.

Thank you, Theresa Adderley

APPENDIX J

PERMISSION TO USE MRNS INSTRUMENT

Theresa Adderley
5800 NW Zinnia Street
Port Saint Lucie , Florida

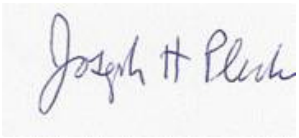
Dr. Pleck
Department of Psychology
Beh 339 University of South Florida , Tampa
FL 33620.

Dear Colleague,

My name is Theresa Adderley and I am a Doctoral Student at Florida International University, Miami Florida entitled, Bahamian Men's Sexual Risks for HIV/AIDS. I am writing to request your permission to use the Male Role Norms Scale (MRNS). The broad goal of the study is to examine determinants of HIV risks in Bahamian men and offer implications for the development of culturally sensitive HIV prevention interventions for Bahamian men. The purpose of the MRNS is to assess the perceived importance for men to think, feel and behave in accordance with culturally defined standards for male behavior. All three subscales will be used for the study. The research question for this variable will be

Question 1	Is there a relationship between Bahamian men's masculine ideology, condom attitudes, condom use self-efficacy and safer sex behaviors?
Question 2	What are the individual and combined contributions of select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, condom use self-efficacy, on safer sex behaviors among Bahamian men?
Hypotheses 1	There will be a negative relationship between Bahamian men's masculine ideology and condom attitudes.
Hypotheses 2	There will be negative relationships between Bahamian men's masculine ideology and the condom use self-efficacy.
Hypotheses 3	There will be negative relationships between Bahamian men's masculine ideology and safer sex behaviors.

Please indicate your approval of this permission by signing the letter where indicated below and returning it to me as soon as possible. Or emailing me at defibrillaebahamas@yahoo.com. By signing this letter, or confirming via email, you are confirming that you own the copyright to the above described material. Thank you very much. Theresa Adderley (Doctoral Student)
PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:
(Type name of addressee below signature line)



(Signature) Date:

PERMISSION TO USE CAS INSTRUMENT

Tuesday, January 11, 2011 11:07 AM

:

Dear Colleague

Attached to this message you will find a copy of the Condom Attitude Scale (CAS). Please feel free to use the CAS for research or treatment purposes. In return, I ask that you send me a brief report of how you used the scale, your results, and other relevant observations.

I will be pleased if you use the scale and look forward to your feedback. Thank you in advance for your cooperation.

Given the factor structure of the CAS, it will be important to score the subscales separately, rather than use it simply as a unidimensional scale. Although the total CAS score can be analyzed and is meaningful, subscale scores will reveal much more about the relationship between condom attitudes and condom use. Consequently, I am sending a list of items according to the factors on which they load, along with factor loadings. No item has a factor loading of greater than .30 on any other factor. You can treat each factor as a separate subscale.

Scoring can be accomplished by simply adding the subject's responses to the subscale items, as you would any scale. Of course, please be aware that some items are worded negatively (i.e., indicate a negative attitude toward condom use) and thus must be scored in the reverse direction. An "R" at the end of the item indicates that it should be reversed scored. The "R" **should not** be included in copies completed by respondents.
The development and psychometric properties of the CAS are described in:
Sacco, W.P., Levine, B., Reed, D., & Thompson, K. (1991). Attitudes about condom use as
an AIDS relevant behavior: Their factor structure and relation to condom use. Psychological Assessment, *3*, 265-272.

I have also attached a copy of the Condom Use Questionnaire (CUQ), which is described in the same article. When using the CUQ, please remember that subjects are provided with an eighth response option to indicate that they would not (did not) have sex in the situation described.

If you have any questions about any aspect of the CAS or the CUQ, please feel free to contact me by phone, mail or e-mail.

Sincerely,

William P. Sacco, Ph.D.
Department of Psychology – PCD 4118
University of South Florida
Tampa, FL 33620
sacco@chuma1.cas.usf.edu

PERMISSION TO USE SSBQ INSTRUMENT

Collins School of Public Health
1518 Clifton Road NE
Atlanta, GA 30322
cdiiori@sph.emory.edu
tel: (404) 727-8741

My name is Theresa Adderley and I am a Doctoral Student at Florida International University, Miami Florida entitled, Bahamian men's sexual risks for HIV. I am writing to request your permission to use the Safe Sex Behavior Questionnaire (SSBQ). The purpose of this study is to (a) demonstrate the relationships among masculine ideology, condom attitudes, self- efficacy for condom use and safer sex behaviors and (b) identify predictors of safer sex behaviors among Bahamian men. Condom use will be operationalized by using the 24-item Safe Sex Behavior Questionnaire (SSBQ; DiIorio et al., 2009). The research question for this variable will be:

Question 1	Is there a relationship between Bahamian men's masculine ideology, condom attitudes, condom use self-efficacy and safer sex behaviors?
Question 2	What are the individual and combined contributions of select demographic variables (i.e., age, income, and education), masculine ideology, condom attitudes, condom use self-efficacy, on safer sex behaviors among Bahamian men?

Please indicate your approval of this permission by signing the letter where indicated below and returning it to me as soon as possible or emailing me at defibrillatebahamas@yahoo.com.
By signing this letter, or confirming via email, you are confirming that you own the copyright to the above described material. Additionally, can you provide a copy of the tool in its published form or direct me to where I can obtain such a copy.

Thank you very much.

Sincerely,

Theresa Adderley (Doctoral Student)

PERMISSION
GRANTED FOR THE USE REQUESTED ABOVE:
You have my permission to use the SSBQ in your research. Good luck with your study.

Colleen DiIorio

(Signature)
Date: July 18, 2011

APPENDIX K

MASCULINE IDEOLOGY QUESTIONNARE

The following items are intended to measure questions related health practices. There are not right or wrong responses to any of these statements. For each of the statements, you are to check (√) your response on the number of your choice. There is no right or wrong answers to these statements. Your completion of this questionnaire indicates your consent to participate in this study.

Part I: Masculine Ideology	Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
1. A man should always try to project an air of confidence even if he really does not feel confident inside.	[ ]	[ ]	[ ]	[ ]	[ ]
2. I think a young man should try to become physically tough even if he is not big.	[ ]	[ ]	[ ]	[ ]	[ ]
3. If I heard about a man who was a hairdresser and a gourmet cook, I might wonder how masculine he was.	[ ]	[ ]	[ ]	[ ]	[ ]
4. A good motto for a man would be to "When the going gets tough, the tough gets going".	[ ]	[ ]	[ ]	[ ]	[ ]
5. A man owes it to his family to work at the best paying job he can get.	[ ]	[ ]	[ ]	[ ]	[ ]
6. When a man is feeling a little pain, he should try not to let it show very much.	[ ]	[ ]	[ ]	[ ]	[ ]
7. A man must stand on his own two feet and never depend on other people to help him do things.	[ ]	[ ]	[ ]	[ ]	[ ]
8. A man should always refuse to get into a fight even if there seems to be no way to avoid it.	[ ]	[ ]	[ ]	[ ]	[ ]
9. A man whose hobbies are cooking, sewing and going to the ballet probably would not appeal to me.	[ ]	[ ]	[ ]	[ ]	[ ]

10. Success in his work has to be a man's central goal in his life.	[ ]	[ ]	[ ]	[ ]	[ ]
11. A man should never back down in the face of trouble.	[ ]	[ ]	[ ]	[ ]	[ ]
12. I might find it a little silly or embarrassing if a male friend of mine cried over a sad love scene in a movie.	[ ]	[ ]	[ ]	[ ]	[ ]
13. A man should generally work overtime to make more money whenever he has the chance.	[ ]	[ ]	[ ]	[ ]	[ ]
14. Fists are sometimes the only way to get out of a bad situation.	[ ]	[ ]	[ ]	[ ]	[ ]
15. I always like a man who is totally sure of himself.	[ ]	[ ]	[ ]	[ ]	[ ]
16. Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary.	[ ]	[ ]	[ ]	[ ]	[ ]
17. A real man enjoys a bit of danger now and then.	[ ]	[ ]	[ ]	[ ]	[ ]
18. It is essential for a man to always have the respect and admiration of everyone who knows him.	[ ]	[ ]	[ ]	[ ]	[ ]
19. I think it is extremely good for a boy to be trained to cook, clean the house and take care of younger children.	[ ]	[ ]	[ ]	[ ]	[ ]
20. A man always deserves the respect of his wife and children.	[ ]	[ ]	[ ]	[ ]	[ ]
21. A man should always think everything out coolly and logically and have rational reasons for everything he does.	[ ]	[ ]	[ ]	[ ]	[ ]
22. It bothers me when a man does something that I consider feminine.	[ ]	[ ]	[ ]	[ ]	[ ]
23. Nobody respects a man very much who frequently talks about his worried, fears and problems.	[ ]	[ ]	[ ]	[ ]	[ ]

24. It is a bit embarrassing for a man to have a job that is usually filled by a woman.	[ ]	[ ]	[ ]	[ ]	[ ]
25. In some kinds of situations a man should be ready to use his fists even if his wife or his girlfriend would object.	[ ]	[ ]	[ ]	[ ]	[ ]
26. The best way for a young man to get the respect of other people is to get a job, take it seriously, and do it well.	[ ]	[ ]	[ ]	[ ]	[ ]

APPENDIX L

SELF-CONTROL AND PERCEIVED RISKS SUBSCALES

Part II: Self Control	Strongly Disagree 0	Mostly Disagree 1	Somewhat Disagree 2	Neither Agree nor Disagree 3	Somewhat Agree 4	Mostly Agree 5
1. I'm concerned about catching AIDS, but the heat of the moment it probably wouldn't stop me from having intercourse without a condom.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2. I'm concerned about catching a sexually transmitted disease, but in the heat of the moment, it probably wouldn't stop me from having intercourse without a condom.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
3. I'm concerned about catching AIDS (or other sexually transmitted diseases), so I'd be careful and play it safe even in the heat of the moment.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
4. If a condom is not handy, I'll have sexual intercourse anyway.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
5. I wouldn't use a condom if I had a strong sexual craving for a person, even if I knew little about their sexual history.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
6. I'd only use a condom if one was available.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7. I probably wouldn't use a condom if I was drunk or high.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8. I'm concerned about catching AIDS (or other sexually transmitted diseases), but there might be some situations when I wouldn't be as careful as I ought to be.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9. I wouldn't use a condom if my partner insisted against using one.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Risks						
10. I am careful, I could catch AIDS.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

11. If I engage in sexual intercourse without using a condom, I could definitely catch a sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12. If I engage in sexual intercourse without using a condom, I could definitely catch AIDS.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13. If I'm not careful, I could definitely catch a sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14. I worry that I could catch a sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15. I am concerned about catching AIDS or some other sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

APPENDIX M

CONDOM USE SELF-EFFICACY SCALE

Part III: Condom Use Self-Efficacy	Strongly Agree 1	Agree 2	Undecided 3	Disagree 4	Strongly Disagree 5
1. I feel confident in my ability to put a condom on myself or my partner.	[ ]	[ ]	[ ]	[ ]	[ ]
2. I feel confident I could purchase condoms without feeling embarrassed.	[ ]	[ ]	[ ]	[ ]	[ ]
3. I feel confident I could remember to carry a condom with me should I need one.	[ ]	[ ]	[ ]	[ ]	[ ]
4. I feel confident in my ability to discuss condom usage with any partner I might have.	[ ]	[ ]	[ ]	[ ]	[ ]
5. I feel confident in my ability to suggest using condoms with a new partner.	[ ]	[ ]	[ ]	[ ]	[ ]
6. I feel confident I could suggest using a condom without my partner feeling "diseased".	[ ]	[ ]	[ ]	[ ]	[ ]
7. I feel confident in my own or my partner's ability to maintain an erection while using a condom.	[ ]	[ ]	[ ]	[ ]	[ ]
8. I would feel embarrassed to put a condom on myself or my partner.	[ ]	[ ]	[ ]	[ ]	[ ]
9. If I were to suggest using a condom to a partner, I would feel afraid that he or she would reject me.	[ ]	[ ]	[ ]	[ ]	[ ]
10. If I were unsure of my partner's feelings about using condoms, I would not suggest using one.	[ ]	[ ]	[ ]	[ ]	[ ]
11. I feel confident in my ability to use a condom correctly.	[ ]	[ ]	[ ]	[ ]	[ ]
12. I would feel comfortable discussing condom use with a potential sexual partner before we ever had any sexual contact (e.g. hugging, kissing, caressing, etc.)	[ ]	[ ]	[ ]	[ ]	[ ]
13. I feel confident in my ability to persuade a partner to accept using a condom when we have intercourse.	[ ]	[ ]	[ ]	[ ]	[ ]

14. I feel confident I could gracefully remove and dispose of a condom when we have intercourse.	[ ]	[ ]	[ ]	[ ]	[ ]
15. If my partner and I were to try to use a condom and did not succeed, I would feel embarrassed to try to use one again (e.g. not being able to unroll condom, putting it on backwards or awkwardness).	[ ]	[ ]	[ ]	[ ]	[ ]
16. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I've had a homosexual experience.	[ ]	[ ]	[ ]	[ ]	[ ]
17. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I have a sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]
18. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I thought they had a sexually transmitted disease.	[ ]	[ ]	[ ]	[ ]	[ ]
19. I would feel comfortable discussing condom use with a potential partner before we ever engaged in intercourse.	[ ]	[ ]	[ ]	[ ]	[ ]
20. I feel confident in my ability to incorporate putting a condom on myself or my partner into foreplay.	[ ]	[ ]	[ ]	[ ]	[ ]
21. I feel confident that I could use a condom with a partner without "breaking the mood."	[ ]	[ ]	[ ]	[ ]	[ ]
22. I feel confident in my ability to put a condom on myself or my partner quickly.	[ ]	[ ]	[ ]	[ ]	[ ]
23. I feel confident I could use a condom during intercourse without reducing any sexual sensations.	[ ]	[ ]	[ ]	[ ]	[ ]
24. I feel confident that I would remember to use a condom even after I have been drinking.	[ ]	[ ]	[ ]	[ ]	[ ]

25. I feel confident that I would remember to use a condom even if I were high.	[ ]	[ ]	[ ]	[ ]	[ ]
26. If my partner didn't want to use a condom during intercourse, I could easily convince him or her that it was necessary to do so.	[ ]	[ ]	[ ]	[ ]	[ ]
27. I feel confident that I could use a condom successfully.	[ ]	[ ]	[ ]	[ ]	[ ]
28. I feel confident I could stop to put a condom on myself or my partner even in the heat of passion.	[ ]	[ ]	[ ]	[ ]	[ ]

APPENDIX N

SAFE SEX BEAHVIORS QUESTIONNARE

Directions: Below is a list of sexual practices. Please read each statement and respond by indicating **your degree of use of these practices.**

1 = Never 2 = Sometimes 3 = Most of the Time 4 = Always

Part IV: Safer Sex Behaviors	Never	Sometimes	Most of the time	Always
1. I insist on condom use when I have sexual intercourse.	1	2	3	4
2. I use cocaine or other drugs prior to or during sexual intercourse.	1	2	3	4
3. I stop foreplay long enough to put on a condom (or for my partner to put on a condom).	1	2	3	4
4. I ask potential sexual partners about their sexual histories.	1	2	3	4
5. I avoid direct contact with my sexual partner's semen or vaginal secretions.	1	2	3	4
6. I ask my potential sexual partners about a history of bisexual/homosexual practices.	1	2	3	4
7. I engage in sexual intercourse on a first date.	1	2	3	4
8. I abstain from sexual intercourse when I do not know my partner's sexual history.	1	2	3	4
9. I avoid sexual intercourse when I have sores or irritation in my genital area.	1	2	3	4
10. If I know an encounter may lead to sexual intercourse, I carry a condom with me.	1	2	3	4
11. I insist on examining my sexual partner for sores, cuts, or abrasions in the genital area.	1	2	3	4
12. If I disagree with information that my partner presents on safer sex practices, I state my point of view.	1	2	3	4
13. I engage in oral sex without using protective barriers such	1	2	3	4

as a condom or rubber dam.

14. If swept away in the passion of the moment, I have sexual intercourse without using a condom.	1	2	3	4
15. I engage in anal intercourse.	1	2	3	4
16. I ask my potential sexual partners about a history of IV drug use.	1	2	3	4
17. If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.	1	2	3	4
18. If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse.	1	2	3	4
19. I avoid direct contact with my sexual partner's blood.	1	2	3	4
20. It is difficult for me to discuss sexual issues with my sexual partners.	1	2	3	4
21. I initiate the topic of safer sex with my potential sexual partner.	1	2	3	4
22. I have sexual intercourse with someone who I know is a bisexual or gay person.	1	2	3	4
23. I engage in anal intercourse without using a condom.	1	2	3	4
24. 1 drink alcoholic beverages prior to or during sexual intercourse.	1	2	3	4

APPENDIX O

DEMOGRAPHIC QUESTIONNARE

Part V: Demographic Questionnaire

The following questions are about your demographic information. There are not right or wrong responses to any of these statements. For each of the information questions you are to fill in the blank or check the appropriate box for a response that best describes you.

1. What is your present age? _____

2. What is your present relationship status? (***select the response that best describes your status***)
   - □ No relationship but sexually active within the last 3 months.
   - □ Married in an exclusive /monogamous sexual relationship
   - □ Not married but in an exclusive/monogamous sexual relationship
   - □ Married and having sexual relationships with more than one person
   - □ Not married but having sexual relationships with more than one person

3. What is the length of your current relationship? _____

4. What is your highest level of education?
   - □ Less than a high school degree
   - □ Some high school
   - □ Completed high school
   - □ Some college, technical school
   - □ Associates of Science Degree
   - □ Bachelors of Science Degree [4-year college degree]
   - □ Graduate Degree

5. What is your current employment status?
   - □ Unemployed
   - □ Employed

6. What is your level of income?
   - □ Less than $10,000
   - □ $10,001 to $20,000
   - □ $20,001 to $40,000
   - □ $40,001 to $50,000
   - □ $50,001 to $60,000
   - □ More than $60,001
   - □ Refuse to answer

7. What is the age of your first sexual experience? _____

8. While you were growing up, was your father present or absent in the home where you lived?

- □ Absent
- □ Present

You are now instructed to skip question nine if your answer to question 8 was "Present"

9. What was or is the reason for your father's absence?
   - □ I do not know why
   - □ He died before I was 18 years old
   - □ Mother and father separated (not divorced)
   - □ Mother and father were divorced
   - □ My mother and father were never married
   - □ Father was the sweetheart to my mother
   - □ I do not know my father's identity
   - □ Other_____.

10. What is your number of lifetime sexual partners? _____.

11. Have you ever had any type of sexually transmitted disease?
    - □ No
    - □ Yes

12. Have you been tested for HIV?
    - □ No
    - □ Yes

13. Select **ONE** of the terms below that best describes how you think yourself
    - □ Straight (Heterosexual)
    - □ Gay, homosexual
    - □ Down-low (sex with other men, while involved intimately with a woman)
    - □ Bisexual

14. Were you born in The Bahamas?
    - □ No
    - □ Yes

15. How long have you been living in The Bahamas ? _____ .

VITA

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January 27	Born, Nassau Bahamas
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1990 – 1992	Bachelors of Science, Nursing Barry University Miami, Florida
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