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Factors That Influence HIV Testing Among African American College Women

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2015

Abstract

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Dissertation Submitted in Partial Fulfillment

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Doctor of Philosophy

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Abstract

Human immunodeficiency virus (HIV) has become one of the world's most serious health and development challenges. It is important for African American female students who attend Historically Black Colleges and Universities (HBCUs), to engage in routine HIV testing and know their HIV status based on the high prevalence rate of HIV/AIDS among African American women and the risk of engaging in risky sexual behavior in a college. This qualitative study was developed to help gain a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. Face-to-face individual interviews were conducted to collect data from African American female students who attend a HBCU. By using the theory of reasoned action and planned behavior (TRA/TPB), behaviors, intentions, attitudes, subjective norms and perceived behavioral control were explored by addressing questions and topics related to attitudes and decision making toward HIV testing. The women interviewed in this study had accepting and positive attitudes toward HIV testing. Perceived risk level was the leading a factor in making the decision to be tested for HIV among participating women. Understanding how these factors affect communities will help public health professionals, educators, community leaders, university personnel, policy makers, community organizations, and researchers develop the most effective strategies for the development and delivery of HIV testing messages that target African American female students who attend HBCUs.

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Dedication

I lovingly dedicate this dissertation to my family. I am truly grateful to have a loving and supportive family. To my grandmothers, the late Iona Hickombottom and Mildred Briggs who never stopped praying for me, thank you for always supporting and encouraging me. To my beloved parents, Larry and Dessie Stewart who taught me to have a strong work ethic and instilled in me that I can do anything, I am grateful and blessed to have you both as parents. Thank you for the sacrifices you made so I could always fulfill my dreams. To my son, Cameron Sampson, words cannot express how much you mean to me. Thank you for being my inspiration to complete what I set out to do. I strive to be an example for you that education is important and becoming a lifelong learner is rewarding. To my sister, Bridget Stewart I cannot find words to tell you how much your assistance and encouragement helped me to get through this process. I would also like to thank my friends and the rest of my family who have been so supportive.

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I want to thank Dr. Raymond Thron, the University Research Reviewer; you helped me to produce a quality dissertation. I also want to thank Dr. Anthony Santella who stepped down as my committee chair after my proposal was approved. Your guidance and support through the proposal was appreciated.

To the research participants who were willing to share their time and personal experiences to help me complete this study, I thank you.

Most of all thanks to God who continues to lead my path…I can do all things through God who strengthens me.

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Chapter One: Introduction to the Study

Introduction

Human immunodeficiency virus (HIV) has become one of the world's most serious health and development challenges (Chng, Carlon, & Toynes, 2006; Freeman, 2010; Thomas et al., 2008). HIV has disproportionately affected minority racial and ethnic populations (Johns, Bauermeister, & Zimmerman, 2010). In the United States, African Americans lead the nation in incidences of HIV, Acquired Immunodeficiency Syndrome (AIDS), and sexually transmitted infections (STIs; Centers for Disease Control and Prevention [CDC], 2012a). It is vital for all individuals to know their HIV status. By knowing his or her HIV status an individual may protect their health and the health of his or her partner/s (Freeman, 2010; Hou, 2009a; Payne et al., 2006). HIV testing is the only reliable way to determine HIV status (Freeman, 2010; Hou, 2009a). This qualitative study used individual interviews to identify attitudes of African American female students who attend Historically Black Colleges and Universities (HBCUs) toward HIV testing and explore how the decision to engage in HIV testing is made. The rationale for targeting this population is provided later in this chapter.

Background

The HIV epidemic is a health crisis among African Americans (Ferguson, Quinn, Eng, & Sandelowski, 2006; McNair & Prather, 2004). African Americans represent 12% of the U.S. population and almost half of the individuals who are HIV positive in the United States are African Americans (CDC, 2012a). HIV has become a major concern among African American young adults (CDC, 2012a). African Americans under the age of 30 account for more than half of new HIV infections (CDC, 2012b; Kaiser, 2013a). African American women account for an overwhelming amount of new HIV infections (McNair & Prather, 2004). In 2010, the estimated rate of new HIV infections for African American women was 38.1 per 100,000 of the population (CDC, 2012a).

HIV has become one of the world's most serious health challenges and an increasingly recognized public health priority among college students in the United States, particularly students enrolled in HBCUs (Chng, Carlon, & Toynes, 2006; Thomas et al., 2008). HBCUs have higher incidence rates of students testing positive than non-HBCUs (Hou, 2009b). This study focused on HIV testing in the targeted population because African American female students attending HBCUs are at an increased risk for HIV infection, compared with their non-HBCU peers (Hou, 2009b). It has been suggested that this increased risk may be due to the greater number of HIV positive African American HBCU students and African Americans being more likely to have sex with partners of the same race or ethnicity (CDC, 2013). HBCU students also have a higher perceived risk of HIV infection than non-HBCU students and that is likely to impact the attitudes related to HIV testing and factors considered when deciding whether to engage in HIV testing (Hou, 2009b; Thomas et al., 2008). It has been suggested that alarming statistics of HIV among African American communities and HBCUs may contribute to the higher perceived HIV risk (Hou, 2009b). Studies directly comparing HIV risky behaviors and sexual behavior between African American female students attending HBCUs and African American female students attending non-HBCUs are scarce (Hou, 2009b).

Despite being aware of the severity of the HIV epidemic, African American female students attending HBCUs still choose not to access HIV testing services or are diagnosed late in their illness (CDC, 2012a; Chng, Carlon, & Toynes, 2006; Norwood, 2011; Thomas et al., 2008). The CDC (2012a) estimates that approximately 21% of HIV infections among African Americans are undiagnosed. According to Johns, Bauermeister, & Zimmerman (2010), once individuals are aware of their HIV-positive status, they decrease risky sexual behaviors. In addition, routine testing tends to promote healthier behavior among HIV-negative persons (Johns, Bauermeister, & Zimmerman, 2010). By being aware of HIV positive status, African American females have the ability to protect their own health and the health of their partners and children (Johns, Bauermeister, & Zimmerman, 2010).

Initiatives have been implemented to provide access to HIV testing to college students attending HBCUs and non-HBCUs (CDC, 2005). Initiatives have been developed to target African American college students attending HBCUs because this population is at an increased risk for HIV infection, is less often reached by health promotion efforts, and often have less funding sources for on campus services (Baber, 2012; CDC, 2005; Feagin, Hernan, & Nikitah, 1996). Universities and colleges play an important role in the nation's response to HIV and AIDS as a source for educating students, faculty, staff, and communities about HIV and AIDS; providing testing; and conducting research (CDC, 2005). HBCUs have become a primary promoter of HIV prevention and testing initiatives particularly in the African American community (Chng, Carlon, & Toynes, 2006). Understanding the attitudes and behaviors of African American female students who attend HBCUs can help provide information about a large segment of African American young adults who are at increased risk for HIV infection (Sutton et al., 2011).

After engaging in HIV testing, behavior change often occurs among people already infected with HIV or at risk for HIV infection (Johns, Bauermeister, & Zimmerman, 2010). If the HIV test is positive, resources are provided to cope with the result and the right treatment can be received to help lead a healthy life (Freeman, 2010; Johns, Bauermeister, & Zimmerman, 2010). The longer an individual remains unaware of their HIV infection, the less likely it is that the treatment will be effective (Freeman, 2010).

Problem Statement

There have been a number of studies to examine the sexual behaviors and HIV testing practices of African American female students attending HBCUs (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Payne et al., 2006). Researchers have revealed that African American female students attending HBCUs engage in behaviors that put them at increased risk for HIV transmission (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Payne et al., 2006). The risky behaviors include having multiple sexual partners, having had a STI and inconsistent condom use (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Payne et al., 2006).

It is important for African American female students who attend HBCUs to engage in routine HIV testing and know their HIV status based on the high prevalence rate of HIV and AIDS among African American women and the risk of engaging in risky sexual behavior in a college environment (Chng, Carlon, & Toynes, 2006; Ferguson, Quinn, Eng, & Sandelowski, 2006; Freeman, 2010; Thomas et al., 2008). Few studies have been conducted by researchers that examine the attitudes of HIV testing and factors that influence the decision making among African American female students who attend HBCUs (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Thomas et al., 2008). This research fills this gap by examining the attitudes of African American female students who attend HBCUs toward HIV testing and factors that influence their decision of whether or not to engage in HIV testing.

Purpose of the Study

The findings from this exploratory study provided me with a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. As a result of this study, information will be provided to public health and health professionals, health department officials, student health services personnel and university administrators that will assist in identifying the attitudes of African American female students who attend HBCUs toward HIV and factors associated with them being tested for HIV. In turn, by understanding the attitude and decision making process of African American female students who attend HBCUs related to HIV testing, professionals will be able to determine the approaches to developing the most effective health messages to reach this population.

Nature of the Study

The study design for this study was qualitative. There is a need for qualitative research to gain a more in-depth understanding into the factors that influence HIV testing practices among African American female students who attend HBCUs as most studies conducted previously have been quantitative (Norwood, 2011). This study was exploratory because there is a small amount of information that exists related the attitudes and decision making of the targeted population toward HIV testing. Qualitative, exploratory research allows for deeper exploration of attitudes, values, and perceptions (Creswell, 2009; Hogan, Dolan, & Donnelly, 2009; Ulin, Robinson, & Tolley, 2005). Qualitative research is often the best method for understanding why individuals feel the way they do (Creswell, 2009; Hogan, Dolan, & Donnelly, 2009; Ulin, Robinson, & Tolley, 2005). Qualitative research was consistent in examining the attitudes of African American female students who attend HBCUs and factors that influence their decisions to seek HIV testing. Participants were able to share attitudes, feelings, beliefs, and experiences in relation to HIV testing.

Individual interviews were conducted in this study. By conducting in depth individual interviews, I explored the attitudes of African American female students who attend HBCUs toward HIV testing and was able to provide insight into how they make their decision as to whether or not to engage in HIV testing. Interviewing allowed me to develop a deeper and better understanding of how attitudes and identified factors such as social norms, perceived risk, access to services, and testing locations impact African American female students' intent and decision to engage in HIV testing by allowing participants to share their personal experience, beliefs, and perceptions of HIV testing.

Purposeful sampling was used in this study and participants were required to meet the following criteria. Inclusion criteria for participants were as follows, participants were: (a) enrolled in a HBCU as a part-time or full-time student, (b) Black and/or African American female, (c) over the age of 18, and (d) an undergraduate. Both passive and active recruitment strategies were implemented in the recruitment process of this study. Prior to beginning the interviewing session, participants provided demographic information by completing a participant demographic survey.

The phenomenological approach was used in the study to gather data and perceptions. The phenomenological approach is based in a paradigm of personal knowledge and subjectivity, and emphasizes the importance of personal perspective and interpretation (Creswell, 2009). By following the phenomenological approach, this study combined the experiences and attitudes of many individuals into a singular expression. The combining of experiences into a common position can be useful in developing interventions or pursuing additional research on the subject matter (Creswell, 2009).

Research Questions

In this exploratory study, I identified how African American female students who attend HBCUs make the decision to engage in HIV testing by examining the attitudes of African American female students who attend HBCUs toward HIV testing and factors that influence their decision to be tested. The research questions were:

RQ1: What factors do African American female students who attend HBCUs consider when making the decision of whether to engage in HIV testing on and off the college campus?

RQ2: What are the attitudes of African American female students who attend HBCUs regarding the importance of HIV testing?

Theoretical Framework

The theoretical framework for this study was the theory of reasoned action (TRA) and planned behavior (TPB). The TRA was described in 1967 by Fishbein and Ajzen (2010) and includes the idea that behavior is driven by intentions that is a function of an individual's attitude toward the behavior and subjective norms around the performance of the behavior. In 1985, this idea was extended as the TPB (Omer & Haidar, 2010). Since then, the TPB has been added to TRA (Omer & Haidar, 2010). The TRA/TPB has been used in explaining HIV testing (Knussen, Flowers, & Church, 2004; Omer & Haidar, 2010). Knussen, Flowers, and Church (2004) and Omer and Haidar (2010) found the TRA/TPB to be a useful model in exploring the role of perceived risk, normative belief, and self-control in predicting intended HIV testing. Studies that have used the TRA/TPB to examine sexual behavior and HIV testing practices are discussed in more detail in the next chapter.

TRA

TRA has been used in understanding attitudes and predicting social behavior (Fishbein & Ajzen, 2010). According to the TRA, the most important determinant of a person's behavior is behavior intent, which is a combination of attitude toward performing the behavior and subjective norm (Omer & Haidar, 2010). Attitude is determined by behavioral beliefs (an individual's beliefs of the outcomes or benefits of performing a specific behavior; Fishbein & Ajzen, 2010). The subjective norm of a person is determined by whether those who are important to the person approve or disapprove of the performance of a behavior (Fishbein & Ajzen, 2010).

TRA has been particularly relevant in studying STI prevention, sexual behaviors and HIV testing (Fazekas, Senn, & Ledgerwood, 2001; Hennessey et al., 2010; Knussen, Flowers, & Church, 2004). The results of a study conducted by Knussen, Flower, and Church (2004) which focused on gay men's intentions to take an HIV test were examined using the TRA model. TRA has also been used in studies that examined behaviors among college students (Fazekas, Senn, & Ledgerwood, 2001).

TPB

The TPB builds on the TRA by adding a third determinant of intention - perceived behavioral control (Omer & Haidar, 2010). According to this theory, the formation of behavioral intention is created by the combined attitude toward the behavior, subjective norm and perception of behavioral control (Omer & Haidar, 2010). This element represents a person's beliefs about his or her ability to perform the behavior in question (Omer & Haidar, 2010; See Figure 1). TPB has been found to be useful in studying sexual behavior and HIV testing (Knussen, Flowers, & Church, 2004; Omer & Haidar, 2010).

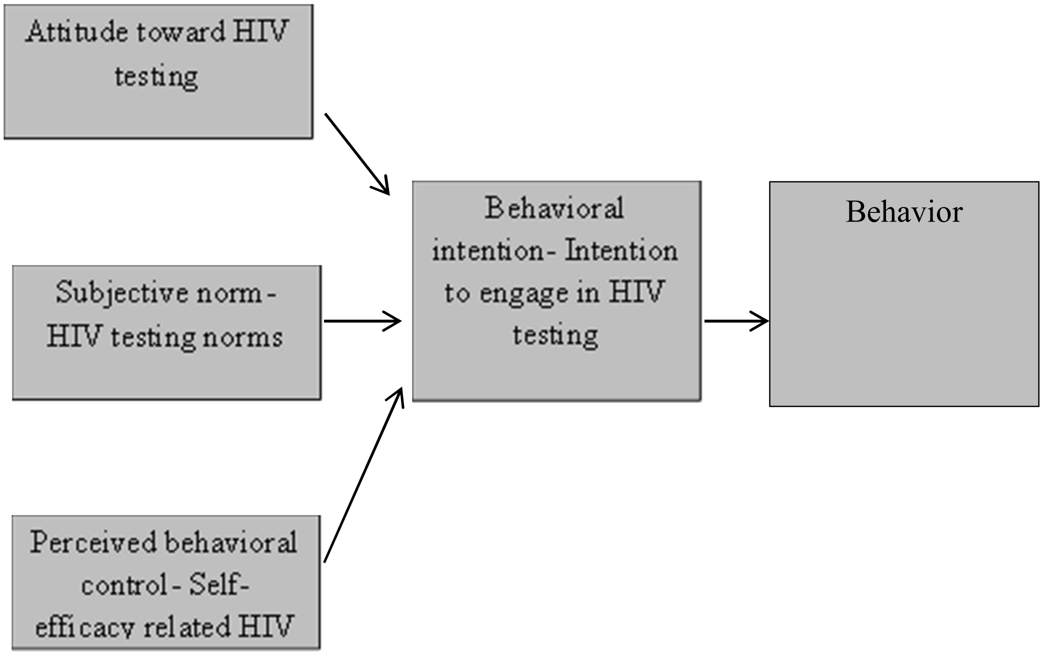

Figure 1. Theory of Reasoned Action and Planned Behavior (Fishbein & Ajzen, 2010; Omer & Haidar, 2010).

The TRA/TPB was chosen for this study as it is a theory that has been found to be a better predictor of HIV health behavior than other models (Payne et al., 2006). When making a decision related to health behavior and testing, individuals reflect on available information, potential risks/benefits, and the expectations of others (Fishbein & Ajzen, 2010; Omer & Haidar, 2010). African American female students who attend HBCUs have been exposed to sufficient information on HIV and the importance of HIV testing (Payne et al., 2006). As attitudes and beliefs have been shown to be significant in people's choice of action, the TRA/TPB is relevant to behavior change (Omer & Haidar, 2010).

This theory may also be used to explore culturally specific factors that may be useful in exploring attitudes and barriers considered by African American female students who attend

HBCUs related to HIV testing (Payne et al., 2006). Discussions used in the interviews explored behaviors, intentions, attitudes, subjective norms, and perceived behavioral control by addressing questions and topics provided by me that explored the factors that might have affected their intent to be tested for HIV, positive or negative reasons for being tested, and individuals and/or groups who influenced their decision to be tested for HIV.

Definition of Terms

The following terms and phrases are defined as used in this study:

African American female students who attend HBCUs: African American female HBCU students in this study are described as students who are 1) African American, 2) female, 3) enrolled in HBCU and 4) age 18 years and older.

Historically black colleges and universities (HBCU): Historically black colleges and universities are institutions of higher education in the United States that were developed with the intent of serving the African American community (United Negro College Fund [UNCF], 2012).

HIV testing: There are a number of tests that can used to find out whether a person is infected with HIV. The rapid test is most commonly used among African American female students who attend HBCUs (Hou, 2009a; U.S. Department of Health and Human Services, 2012).

Human immunodeficiency virus (HIV): HIV is a virus that causes AIDS. HIV is a STI that can also be spread by contact with infected blood, or from mother to child during pregnancy, childbirth or breast-feeding (CDC, 2012c).

Assumptions

The concept of HIV can be a sensitive subject to discuss (Chng, Carlon, & Toynes, 2006). I assumed that the data collected were accurate and that the study participants were honest in their answers. In order to increase the likeliness that participants answered honestly, prior to conducting the study an explanation was provided on how anonymity and confidentiality would be persevered. The informed consent process consisted of outlining the risks and benefits of participating in this study, giving participants adequate information concerning the study, responding to the participant's questions, and obtaining the voluntary agreement to participate (Creswell, 2009; Rudestam & Newton, 2007).

Limitations

There was a concern in conducting interviews as the researcher's presence may bias the response of participants (Creswell, 2009). It can also be difficult to have the participants share their real feelings towards some sensitive topics publicly (Creswell, 2009). In addition, interviews are conducted in a very artificial environment which can influence the responses that are generated (Creswell, 2009). These limitations were addressed by using strategies such as reflexivity and thick descriptions. Strategies to increase trustworthiness and address limitations are discussed further in Chapter 3.

Delimitations

The purpose of this study was to identify how African American female students who attend HBCUs make the decision to engage in HIV testing. In this study, I examined the attitudes and factors associated with HIV testing among African American female students who attend a HBCU in the South. This study was limited to African American female students who attend HBCUs in the South.

Significance of the Study

Due to the lack of HIV testing among African American female students who attend HBCUs, there is a need for additional understanding on how the decision is made regarding HIV testing (Payne et al., 2006). It was hoped that this study would identify how African American female students who attend HBCUs make the decision to engage in HIV testing. The positive social change implications for this study includes understanding the factors and attitudes associated with HIV testing decision making among African American female students who attend HBCUs. Understanding how these factors affect communities will help public health professionals, educators, community leaders, university personnel, policy makers, community organizations, and researchers develop the most effective strategies for the development and delivery of HIV testing messages that target African American female students who attend HBCUs (Norwood, 2011).

Summary and Transition

As the rates of HIV among African American females continue to increase nationally and locally, public health professionals must be innovative and practical in efforts to promote HIV testing (Payne et al., 2006). Understanding factors that impact the decision making of African American female students who attend HBCUs related to whether or not to be tested for HIV is essential in implementing interventions and strategies that will promote consistent HIV testing of this population (Chng, Carlon, & Toynes, 2006; Freeman, 2010; Thomas et al, 2008).

In a review of the literature in Chapter 2, I cover the lack of HIV testing among African American female students who attend HBCU and factors influencing HIV testing. In Chapter 3, I cover the research design and approach for the study along with the data analysis. In Chapter 4, I describe the data analysis and themes. In Chapter 5, I discuss the study’s findings, limitations, and the recommendation for future research.

Chapter 2: Literature Review

Introduction

In this chapter, I provide an overview of previous research to help understand the importance of African American female students who attend HBCUs deciding to be tested for HIV, factors that influence the decision of whether to engage in HIV testing, and attitudes toward HIV and HIV testing. Topics covered in this chapter included:

1. HIV in the United States: This section will discuss the epidemiology of HIV, gender-ratio imbalance, risky sexual behavior practices, attitudes towards HIV, knowledge of the transmission and prevention of HIV, and beliefs about HIV and AIDS.
2. HIV Testing: This section will reveal the level of awareness and usage of attitudes toward HIV testing resources. The type of HIV testing was not a search criterion in this study.
3. TRA/TPB: This section will examine studies to gain insight into the attitudes, social norms and perceived behavioral control of HBCU students related to HIV and HIV testing.

The keywords used in locating literature for this study included: *HBCU students, HIV testing, college students, African American women, HBCU, attitudes, HIV knowledge, social norm, perceived behavioral control, TRA/TPB and HIV*. The databases used to search for this information included PsycINFO, SAGE, MEDLINE, ProQuest, and CINAHL Plus. In order to be included in this review, the research studies had to be published between 2000 and 2013 in a peer reviewed journal. Peer reviewed journals and articles that did not cover topics related to

HBCU students, African Americans and HIV and AIDS were excluded (see Figure 2). Results from the searches were organized by recording details of each source in an Excel spreadsheet.

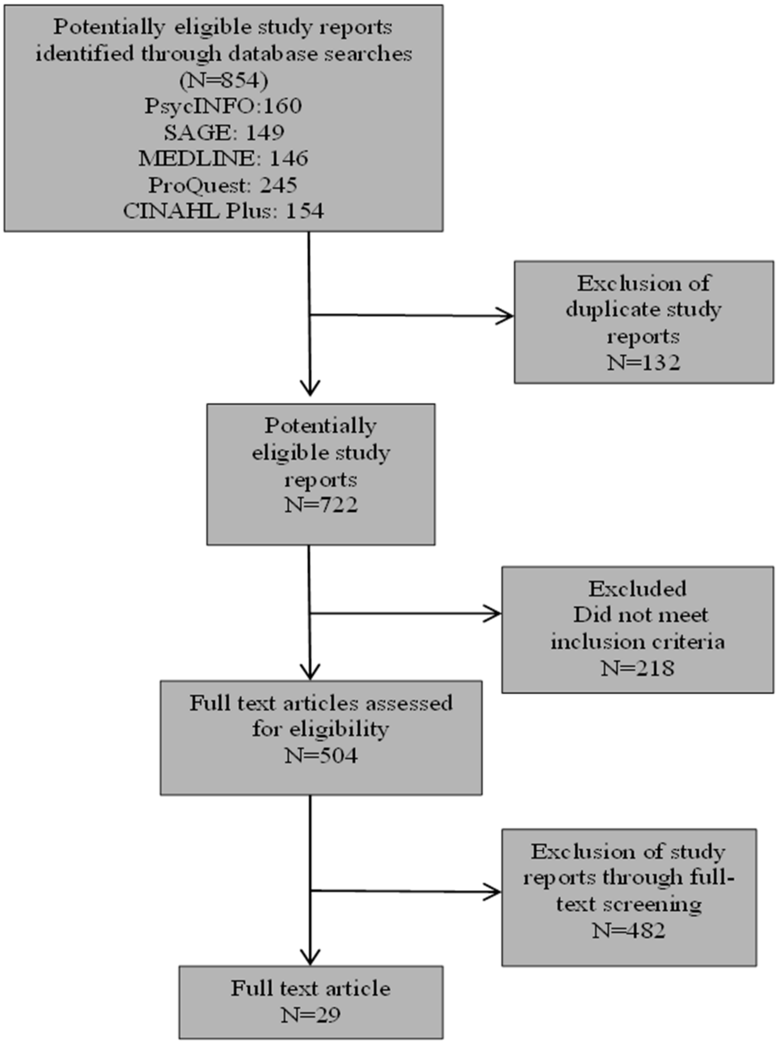

Figure 2. Literature Search Results

HIV in the United States

Since reports of the first cases of AIDS in 1981, more than 1.8 million people in the United States have been infected with HIV (Kaiser Family Foundation, 2013b). More than 1.1

million people are currently living with HIV (Kaiser Family Foundation, 2013b). The most common methods of HIV transmission are through anal or vaginal sex or sharing drug injection equipment with a person infected with HIV (Kaiser Family Foundation, 2013b). The impact of HIV differs across the country and continues to have a disparate impact on racial and ethnic minorities as well as gay and bisexual men (Kaiser Family Foundation, 2013b). According to the Kaiser Family Foundation (2013b), 18% of infected people in the United States are unaware of their status. It has been estimated that over 50% of new cases of HIV are spread among people who are unaware of their HIV status (Johns, Bauermeister, & Zimmerman, 2010). The next sections highlight the epidemiology of HIV among African Americans and African American female students attending HBCU in the United States.

HIV among African Americans

HIV has disproportionately affected minority racial and ethnic populations, particularly in the African American population (Davis, Sloan, MacMaster, & Kilbourne, 2007; Johns, Bauermeister, & Zimmerman, 2010). Poverty, inadequate education, unemployment, under-employment, incarceration, and social and racial discrimination all contribute to the poorer health status of African Americans within the United States (Adimora, Schoenbach & Doherty, 2006; Johns, Bauermeister, & Zimmerman, 2010; Kaiser Family Foundation, 2013a). HIV in the African American community is at epidemic proportions (CDC, 2012a). African Americans account for more new HIV infections, persons living with HIV, and have a higher HIV-related mortality rate than any other ethnic group (Kaiser Family Foundation, 2013a, 2013b). Of the more than 1.1 million people living with HIV and AIDS in the United States more than 510,000 are African American (Kaiser Family Foundation, 2013a, 2013b). In 2010, almost half (48%) of deaths among people diagnosed with HIV were African American (CDC, 2012a; Kaiser Family

Foundation, 2013b). According to the Kaiser Family Foundation (2013a, 2013b), in 2009, HIV was the fourth leading cause of death among African American males and females ages 24-44 compared with other ethnicities.

The face of HIV was once seen as being White, male, and homosexual; however, the new face of HIV is becoming rural, female, African American and heterosexual (Chng, Carlon, & Toynes, 2006; Norwood, 2011). Today, women account for more than 1 in 5 new HIV and AIDS cases in the United States (Kaiser Family Foundation, 2013b). Of these newly infected women, about 2 in 3 are African-American (Kaiser Family Foundation, 2013b). One in 32 African American women is likely to contract HIV in her life time (Kaiser Family Foundation, 2013b). African American women are most likely to contract HIV through heterosexual transmission (Kaiser Family Foundation, 2013a; McNair & Prather, 2004).

In 2011, the southern region of the United States accounted for approximately 48% of HIV diagnoses (Kaiser Family Foundation, 2013b). Over half of the states and metropolitan areas with the most cases of HIV are located in the South (Chng, Carlon, & Toynes, 2006; See Table 1). The number of HIV and AIDS cases has significantly escalated among African Americans in the southern region of the United States (Adimora, Schoenbach, & Doherty, 2006). Therefore, it is imperative to examine the needs, attitudes, and practices of African Americans who reside in the southern region of the United States (Chng, Carlon, & Toynes, 2006). According to the Kaiser Family Foundation (2013b), the South is the only region in the United States where the rate of new HIV diagnoses continues to increase, while the rest of the country has remained relatively stable. In addition, HBCUs are predominantly located in the southern region (Adimora, Schoenbach, & Doherty, 2006; Hou, 2009a; Sutton et al., 2011).

Table 1

Top Ten States/Areas by Rate of HIV Diagnoses

State	HIV Diagnoses, Rate per 100,000
District of Columbia	177.9
Virgin Islands	39.5
Louisiana	36.6
Maryland	36.4
Florida	33.2
Georgia	31.4
New York	30.1
Puerto Rico	28.6
Mississippi	25.3
Texas	24.5
U.S. Rate	**19.1**

Note. Adapted from "The HIV and AIDS Epidemic in the United States" by Kaiser Family Foundation, 2013, HIV and AIDS Policy.

It was suggested that the increase in HIV among African Americans is due to lack of access to health care, high rates of STI infection, poverty, lack of education, concurrent partnerships, low marriage rates and high rates of incarceration (Adimora, Schoenbach & Doherty, 2006; Kaiser Family Foundation, 2013a). African Americans are also at greater risk of HIV infection with each new sexual encounter because HIV is more prevalent in African American communities and African Americans are more likely to engage in sexual behavior with partners of the same race or ethnicity (Adimora, Schoenbach, & Doherty, 2006; CDC, 2012a).

Past negative experiences with the healthcare system may also impact the attitudes of African Americans in relation to receiving services and being tested for HIV (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000). For example, the history of the Tuskegee Syphilis Study has led some African Americans to believe that there is a conspiracy behind HIV and AIDS (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000). It is argued that these past experiences may cause individuals to become skeptical of the healthcare system and less likely to seek services and testing (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000).

African American Female Students Attending HBCUs

Historically, college students are perceived to be at a lower risk for HIV; however, considering the increase of HIV within this age group, it has become necessary to examine their HIV risk behaviors, particularly students enrolled in HBCUs (Chng, Carlon, & Toynes, 2006; Thomas et al., 2008). This epidemic has continued to have a disproportionate effect on young adults (CDC, 2012b; Chng, Carlon, & Toynes, 2006; Thomas et al., 2008). African American young adults and teens account for more than half of new HIV infections (CDC, 2012b; Kaiser Family Foundation, 2013a). This population includes African American female students who attend HBCUs. In order to reduce the impact of HIV on the African American community, it is important to address the entire community, including African American female students attending HBCUs.

HBCUs have higher incidence rates of students testing positive for HIV than non-HBCUs (Hou, 2009b). Studies have been conducted documenting the HIV crisis within the African American community and within HBCUs (Chng, Carlon, & Toynes, 2006; Hou, 2009b; Norwood, 2011; & Payne et al., 2006). However, minimal attention has been dedicated to understanding the factors that influence the HIV testing practices of African American female students attending HBCUs. While new cases of HIV are highest among young African American females, a significant amount of young African American females attend HBCUs (Sutton et al., 2011). In addition to most likely having sex with African American males, African American female students attending HBCUs are more likely to meet their sexual partners at school (Adimora, Schoenbach, & Doherty, 2006; CDC, 2012a; Rose, 2008).

Sexual risk behavior.

The research literature was reviewed for sexual risk practices related to HIV among HBCU students and other races in college settings. Compared with their nonminority peers, African American female students attending HBCUs are at an increased risk for HIV infection and have higher incidence rates of students testing positive than non-HBCUs (Hou, 2009b). Researchers have revealed that although African American female students attending HBCUs are well informed about HIV, they still choose to engage in behaviors, such as inconsistent condom use, multiple sexual partners, engaging in sexual activity while under the influence of drugs and/or alcohol, engaging in sexual activities with someone previously incarcerated and bisexual men, and having had a STI that put them at increased risk for HIV transmission (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Norwood, 2011; Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011).

Race and ethnicity, alone, are not risk factors for HIV infection (Robinson, Sanders, & Boyd, 2012). Other factors that contribute to African-American female students who attend HBCUs being affected by HIV and AIDS more than women of other races include increased self-reporting of: having multiple sexual partners, engaging in sexual activity while under the influence of drugs and/or alcohol, engaging in sexual activities with someone previously incarcerated and bisexual men, and inconsistent condom use (Chng, Carlon, & Toynes, 2006;

Davis, Sloan, MacMaster, & Kilbourne, 2007; Hightow et al., 2005; Norwood, 2011; Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011).

Inconsistent condom use.

Condom use is underused among African American female students attending HBCUs (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Ferguson, Quinn, Eng, & Sandelowski, 2006; Norwood, 2011; Rose, 2008; Thomas et al., 2008). Thomas et al. (2008) examined the HIV risk behaviors and testing practices of HBCU students. In this study, consisting of 3,499 female participants, the most common risky sexual behavior reported by the female participants was engaging in sexual intercourse with no condom (37.4%). Chng, Carlon, & Toynes (2006) measured condom use by including seven items on the developed survey to determine condom norms in which a 5-point Likert scale, range 7-35 was used. Although less than 35% of young African American women reported always using condoms during sexual encounters, the female participants were well aware of the importance of condom use and condom norms (*M*= 25.88, *SD*= 5.75; Chng, Carlon, & Toynes, 2006).

Multiple sexual partners.

Multiple sexual partners are also a commonly reported high risk sexual behavior among African American female students who attend HBCUs (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Thomas et al, 2008). Researchers have revealed that the likelihood of being tested increases with the number of reported sex partners (Norwood, 2011; Thomas et al., 2008). In the Thomas et al. (2008) study, almost half of the participating HBCU female students reported having more than one sexual partner within the past 12 months.

Drug and alcohol influence.

The use of alcohol and drugs is also associated with high risk sexual behavior and HIV infection (Robinson, Sanders, & Boyd, 2012; Sawyer- Kurian & Wechsberg, 2012). The consumption of alcohol and drugs often occurs as the result of peer pressure (Sawyer- Kurian & Wechsberg, 2012). Sawyer-Kurian & Wechsberg (2012) conducted a study at a HBCU in the South designed to identify the needs of HBCU female students who use alcohol and drugs. Interviews and focus groups were conducted. Participants reported being more likely to engage in risky sexual behaviors after or during the use of alcohol and drugs (Sawyer- Kurian & Wechsberg, 2012).

High risk sexual partners.

In the African American community, high rates of incarceration, unemployment, gender ratio imbalance and bisexuality among African American males have also contributed to African American females being at risk for HIV infection (Ferguson, Quinn, Eng, & Sandelowski, 2006; Freeman, 2010; McNair& Prather, 2004; Norwood, 2011). Norwood (2011) conducted a study at a Midwestern university in which 432 African American female college students completed a 129 item questionnaire and 40% reported having had a partner that had been incarcerated.

Ferguson, Quinn, Eng, and Sandelowski (2006) reviewed university admission records which indicated that there is also a gender ratio imbalance on HBCU campuses which consists of more women to men. Ferguson, Quinn, Eng, and Sandelowski (2006) conducted four focus groups in order to examine how the sexual behavior and risk for HIV infection in female students attending HBCUs are impacted by the campus dating environment. Due to the gender ratio imbalance on HBCU campuses, male students tend to have sex with multiple partners (Alleyne & Gaston, 2010; Ferguson, Quinn, Eng, & Sandelowski, 2006; Freeman, 2010). In addition, female participants reported having less power in sexual relationships and females are more likely to comply with condom preference of their male partners (Ferguson, Quinn, Eng, & Sandelowski, 2006). This is thought to put female students at greater risk for HIV infection (Ferguson, Quinn, Eng, & Sandelowski, 2006).

Having sex with men who also have sex with other men, has also increased the risk of getting HIV among African American females, including African American female students who attend HBCUs (Hightow et al., 2005; Thomas et al., 2008). After examining 735 North Carolina state surveillance records of new HIV diagnoses in young men (age 18-30), Hightow et al. (2005) found that 84 (11%) were males attending college. In addition, 87% of the males attending college were African American and 92% of the African American male students reported that they had sex with both men and women.

HIV knowledge.

Researchers have conducted studies to investigate college students' level of knowledge and awareness of HIV and AIDS in the United States (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Payne et al., 2006). It has been revealed that African American female students who attend HBCUs have been exposed to sufficient information and have a high level knowledge about HIV and tend to be aware of HIV testing services (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Payne et al., 2006). The following section reviews HIV/AIDS knowledge and awareness among HBCU students.

In an exploratory/descriptive study conducted at five HBCUs located in Texas, Louisiana, and Oklahoma, Chng, Carlon, & Toynes (2006) examined HIV knowledge, behaviors, and testing practices of students (n=1,146) enrolled in HBCUs. The survey used in the study measured HIV knowledge, awareness and use of HIV testing, factors considered whether to be tested, condom norms, and perceived risk for HIV (Chng, Carlon, & Toynes, 2006). The results of this study revealed that African American female students who attend HBCUs are aware of the severity of the HIV epidemic and often engage in risky sexual behavior, but still choose not to access HIV testing services (Chng, Carlon, & Toynes, 2006). Section one of this study consisted of eight (true/false, range 0-8) items to measure HIV knowledge and female participants presented a moderate level of HIV knowledge (M = 6.47, SD = 1.06, t [519] = -2.887, p=.004; Chng, Carlon, & Toynes, 2006). Section two of this study consisted of four (true/false, range 0-4) items to measure the use of HIV services (Chng, Carlon, & Toynes, 2006). Female participants reported utilizing community HIV services (M=.65, t [1056.271] = 2.343, p =.019) more often than on campus resources (M= .23, t [950.545] = 3.701, p=.0005; Chng, Carlon, & Toynes, 2006).

HIV Testing

HIV testing is vital to HIV prevention, treatment, care and is recommended for all people ages 13-64 (Kaiser Family Foundation, 2013b). By knowing his or her HIV status an individual may protect their health and the health of his or her partner/s by preventing the spread of the disease (Freeman, 2010; Hou, 2009a; Kaiser Family Foundation, 2012; Payne et al., 2006). HIV testing is the only reliable way to determine HIV status (Freeman, 2010; Hou, 2009a). Studies show that those who are aware of their HIV positive status are more likely to modify their behavior to reduce the risk of HIV transmission (Johns, Bauermeister, & Zimmerman, 2010; Kaiser Family Foundation, 2012).

HIV testing and African American female students attending HBCUs

The HIV testing practices of African American female students attending HBCUs have not been widely examined. Encouraging students to get tested for HIV has been a challenge. In studies conducted by Payne et al. (2006) and Thomas et al. (2008) at HBCUs, over 40% of female respondents reported never being tested for HIV. There is a correlation between the number of sexual partners and HIV testing (Thomas et al., 2008). Results revealed that respondents who reported having two-five partners within last year (*CI*= 3.0-4.8; p<0.01) were more likely to report being previously tested than respondents who reported having one partner in last year (*CI*= 2.5-4.0; *p*<0.01; Thomas et al., 2008). The authors found that the likelihood of being tested increased with the number of reported sex partners (Thomas et al., 2008). Norwood (2011) also found the number of sexual partners to be a significant (*p*<.01; *OR*=1.09; *CI*=1.01-1.16) factor in deciding whether to be tested, as well as attitudes about condom use (*p*< .05; *OR*=.85; *CI*=.743-.978); barriers to getting tested for HIV (*p*<.05; *OR*= .95; *CI*=.902-.997); and perceived risk *(p*<.10; *OR*=.65; *CI*=.417-1.02).

Although African American female students who attend HBCUs have a high level of knowledge of the HIV epidemic and engage in risky sexual behavior, they still choose not to access HIV testing services (Chng, Carlon, & Toynes, 2006). The study conducted by Chng, Carlon, & Toynes (2006) also revealed that health and clinical services at HBCUs are often limited and students are aware of on campus HIV testing services, but are more likely to use community HIV testing services. Female students also find confidentiality, nonjudgmental staff, convenience and cost to be important when making decisions related to HIV testing (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Thomas et al., 2008).

HIV testing services

Traditionally, HIV testing has been performed in hospital, public health and clinic settings (Payne et al., 2006; Robinson, Sanders, & Boyd, 2012). Routine HIV testing in primary care settings provides an opportunity for earlier detection (Payne et al., 2006). However, there has been an increase in testing provided in nontraditional settings, including college campuses in an attempt to provide access to testing for students (Payne et al., 2006; Robinson, Sanders, & Boyd, 2012; Warren-Jeanpiere, Jones, & Sutton, 2011). In a study that examined the social demographics and subgroup characteristics of a sample of 20,633 United States high risk adults, Robinson, Sanders, & Boyd (2012) found that African American high risk participants attending college/technical school (*OR*=1.70; *CI*= 1.06-272) are more likely to be tested for HIV than participants who reported being HS graduates (*OR*= 1.06; *CI*= 0.67-1.66).

After exploring the HIV policies and services on HBCU campuses and the perspectives of campus health administrators from 25 HBCUs, Warren-Jeanpiere, Jones, & Sutton (2011) found that less than half (46%) of the participating HBCUs have formal, written HIV prevention and testing policies. Over 70% of administrators reported that HIV testing is available on campus (Warren-Jeanpiere, Jones, & Sutton, 2011). It has been reported that the number of students tested at HBCUs is likely to increase if there is an increase in accessibility and acceptance of HIV testing on HBCU campuses (Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011). One of the reported barriers to providing services on campus is student attitudes regarding HIV (Warren-Jeanpiere, Jones, & Sutton, 2011).

In a two phase study Payne et al. (2006), examined the acceptance of HIV testing among students attending HBCUs. The first phase consisted of 161 participants completing a questionnaire and during the second phase rapid HIV testing was offered on campus (81 participants underwent testing (Payne et al., 2006). The results revealed that participants were accepting of HIV testing (Payne et al., 2006). Participants (50%) who declined HIV testing during the study expressed a desire to be tested but did not have time or did not feel comfortable being tested at that on-campus setting (Payne et al., 2006). Students reporting previous HIV testing were more likely to get tested as part of a routine examination (e.g., Pap smear) rather than specifically seeking HIV testing (Payne et al., 2006).

TRA/TPB

The TRA/TPB was chosen for this study as it is a theory that has been found to be a better predictor of HIV health behavior than other models (Crepez & Marks, 2002; Knussen, Flowers, & Church, 2004; Omer & Haidar, 2010; Payne et al., 2006). TRA/TPB includes the idea that behavior is driven by intentions, which is a function of an individual's attitude toward the behavior, subjective norms around the performance of the behavior and perceived behavioral control related to executing the behavior (Omer & Haidar, 2010). In 1985, this idea was extended as the TPB (Omer & Haidar, 2010). Since then, the TPB has been added to TRA (Omer & Haidar, 2010).

The constructs of TRA/TPB have been shown to be good predictors of behavioral intention in studying HIV prevention behaviors such as HIV testing (Knussen, Flowers, & Church, 2004; Omer & Haidar, 2010). There are many factors identified in the literature which may influence the three constructs of TRA/TPB (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Davis et al., 2007; Freeman, 2010; Hou, 2009b; Kaiser Family Foundation, 2012; Norwood, 2011; Payne et al., 2006; Taylor & Jones, 2007; Thomas et al., 2008; see Figure 3). Knussen, Flowers and Church (2004) and Omer and Haidar (2010) found the TRA/TBP to be a useful model in exploring the role of perceived risk, normative belief and self-control in predicting intended HIV testing. In a study that explored the use of Voluntary HIV Counseling and Testing services among teachers, Omer & Haidar (2010) found that knowledge, potential risks/benefits, subjective norm, and attitudes heavily influenced the decision to use services.

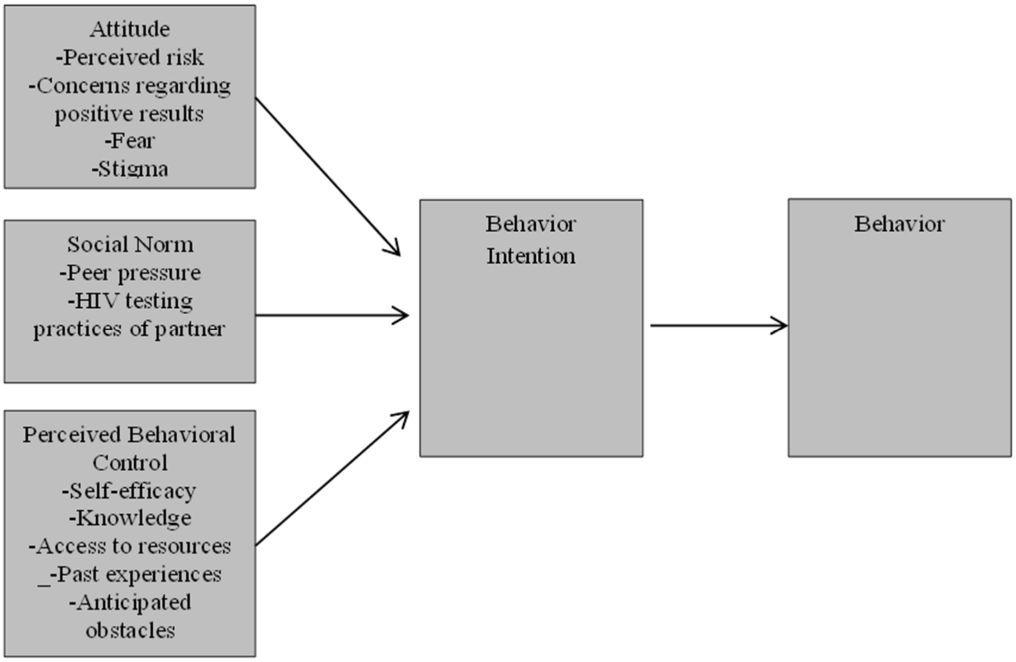

Figure 3. TRA/TPB Framework: Factors identified in the literature that influence attitude toward the behavior, subjective norm and perception of behavioral control. Factors may be considered good predictors of behavioral intention in studying HIV prevention behaviors such as HIV testing (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Davis et al., 2007; Freeman, 2010; Hou, 2009b; Kaiser Family Foundation, 2012; Norwood, 2011; Payne et al., 2006; Taylor & Jones, 2007; Thomas et al., 2008).

In studying the health behaviors of African American females enrolled in HBCUs it is essential to use a framework that includes the exploration of all cultural factors (Payne, Davis, Feldstein-Ewing, & Flanigan, 2009). Various models such as the health belief model (HBM) and information-motivation-behavior (IMB) skills model have been used in an effort to study the HIV testing practices among African Americans. The HBM is often used to try and predict health behaviors (Payne, Davis, Feldstein-Ewing & Flanigan, 2009). This model suggests that a person's willingness to change their health behaviors is primarily due to perceived susceptibility, perceived severity, perceived benefits and perceived barriers (Payne, Davis, Feldstein-Ewing, & Flanigan, 2009). In a study conducted at a HBCU in the South, Payne, Davis, Feldstein-Ewing, and Flanigan (2009) found that the health belief model did not predict the decision to receive HIV testing among participants (African American college students). The IMB model was designed as an AIDS- preventive behavior model (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000). This model suggests that an individual's decisions related to AIDS risk reduction behavior is related to information obtained related to AIDS prevention, motivation to engage in preventative behaviors and having the skills to engage in acts related to prevention (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000). The theory of reasoned action is suitable for understanding the HIV testing practices of African American college students (Payne, Davis, Feldstein-Ewing, & Flanigan, 2009).

HIV testing and attitude

The attitudes of African American female students toward HIV and HIV testing are important when making decisions related to testing. Attitude is determined by behavioral beliefs (an individual's beliefs of the outcomes or benefits of performing a specific behavior; Fishbein & Ajzen, 2010). An individual is more likely to engage in a behavior when she/he sees the outcome as being positive (Fishbein & Ajzen, 2010). The opposite can also be stated if the behavior is perceived as being negative (Fishbein & Ajzen, 2010).

A range of social, economic, and demographic factors affect the risk for becoming infected and influences the decision to be tested for HIV. Payne et al. (2006) conducted a pilot study that examined the attitudes and acceptability of rapid HIV testing among African-American college students on a HBCU campus. In this study Payne et al. found that many of the participants were open to the idea of being tested for HIV and those who declined HIV testing had concerns about testing positive, results being revealed to others and affect results will have on relationships.

Taylor and Jones (2007) also examined HBCU students' attitudes toward HIV and AIDS by conducting an exploratory study. The researchers revealed that although most students reported positive attitudes toward HIV and HIV testing, it is noted that some students shared attitudes counterproductive to the fight against this epidemic which were described in three themes: fear, belief of conspiracy, and association of HIV with homosexuality (Taylor & Jones, 2007). A small percentage of students reported making the decision not be tested for HIV out of fear of results being positive, with some making statements such as "what you don't know can't hurt you" (Taylor & Jones, 2007). For some when making the decision whether to be tested there is a fear of consequences if results are positive (Taylor & Jones, 2007). Only six of the 42 participants expressed beliefs that the HIV epidemic is a part of a "master plan" to rid society of African Americans (Taylor & Jones, 2007). This theory is thought to be a result of the historical challenges of African American which may cause individuals to think negatively toward the healthcare system and less likely to seek HIV services and testing (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Taylor & Jones, 2007). Taylor & Jones also found that a small portion of the participants chose not to see HIV as being a major issue among the heterosexual population.

An individual's perceived risk of HIV has also been identified as a determining factor to HIV testing practices (Kaiser Family Foundation, 2012; Payne et al., 2006; Thomas et al., 2008). HBCU students also have a low perceived risk of HIV infection that is likely to impact the attitudes related to HIV testing and factors considered when deciding whether to engage in HIV testing (Hou, 2009b; Thomas et al., 2008). Although over half of participants in the study conducted by Payne et al. (2006) reported engaging in risky sexual behavior; almost 85% of participants described themselves as having no or low risk of being infected with HIV. It was suggested that there is a correlation between level of perceived risk and HIV testing; as participants who perceived their risk level to be higher were more likely to be tested (Norwood, 2011; Payne et al., 2006; Thomas et al., 2008).

Norwood (2011) and Thomas et al. (2008) also found by conducting a study at HBCUs that several reported risk behaviors were associated with predicting whether participants have been tested for HIV in the past. Researchers found that the likelihood being tested increased as the number of reported sexual partners increased (Norwood, 2011; Thomas et al., 2008). Having sex while drunk or under the influence of drugs sex, having sex with a man who has sex with men and having sex with someone who is HIV positive also increased the likelihood that an individual will engage in HIV testing (Thomas et al., 2008).

Social Norms on HBCU Campuses

The social norm of a person is determined by the approval or disapproval of those who are important to the individual (Fishbein & Ajzen, 2010). If a behavior is viewed as being positive by others, then a positive subjective norm is expected (Fishbein & Ajzen, 2010). If a behavior is viewed as being negative by others, then the experience is likely to be a negative subjective norm for the individual (Fishbein & Ajzen, 2010). There is a correlation between subjective norms and the intention to get tested for HIV (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Davis, et al., 2007).

Upon entering college, students gain a sense of independence, self-determination and peer pressure to experiment with sexual behaviors (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Davis et al., 2007; Freeman, 2010). In a descriptive exploratory study developed to examine the knowledge, attitudes, beliefs and behaviors of African American freshman students attending a HBCU, Rose (2008) found that over half of the participants who completed the survey reported being influenced by friends regarding HIV. For students, peers are considered a source for communicating social norms (Bazargan, Kelly, Stein, Husaini, & Bazargan, 2000; Rose, 2008). Other sources of HIV information include television and school programs (Khosrovani, Mavur, & Sanders, 2011; Rose, 2008). When asked about the risky behavior of friends, half of the participants reported that their friends use condoms during sex always and over 42% reported that their friends say they have safer sex more than they actually do (Rose, 2008). Chng, Carlon, and Toynes (2006) also found that condom use is supported on HBCU campuses.

Thomas et al. (2008) also examined HIV testing norms on seven HBCU campuses as characteristics associated with testing history. In this study, 72% of previously tested participants reported being asked by last partner to be tested (Thomas et al., 2008). Almost 70% of previously tested participants reported inquiring about testing history of their last partner (Thomas et al., 2008).

Perceived Behavioral Control

In order for behavior change to occur, it is important for an individual to feel as though he/she can successfully execute the behavior required (Crepez & Marks, 2002; Omer & Haidar, 2010). Perceived behavioral control refers to the level of effort required to execute a behavior (Omer & Haidar, 2010). Often, the attitude and subjective norm will impact the perceived behavioral control (Crepez & Marks, 2002; Omer & Haidar, 2010). In order for perceived behavioral control to be present it is important for an individual to have knowledge about the behavior and available resources (Omer & Haidar, 2010). In studies, that the TRA/TPB was used, perceived behavioral control is found to improve prediction of intentions and prediction of behavior (Crepez & Marks, 2002; Omer & Haidar, 2010).

In a study conducted at a major university, Norwood (2011) examined factors that influence the HIV testing in African American women. Five questions from a self-efficacy scale related to the respondent's confidence in asking their sexual partner to get tested were included on the questionnaire (Norwood, 2011). Norwood found that self-efficacy is also important in HIV testing.

Review of Methods

Literature that examines methods used by other researchers who conducted studies of African American female students who attend HBCUs and HIV testing were reviewed. Most research which focus on African American female students attending HBCUs and HIV testing are quantitative studies (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Thomas et al, 2008). In these studies, researchers measured several factors which contribute to African American women deciding to be tested for HIV, including confidentiality, nonjudgmental staff, convenience, being unaware of testing sites, cost, fear, conspiracy beliefs, opinions of others, history of STDs, perceived risk for HIV, and engagement in risky behavior (Chng, Carlon, & Toynes, 2006; Norwood, 2011; Thomas et al, 2008). There is a need for qualitative research to gain a more in-depth understanding into the factors that influence HIV testing practices among African American female students who attend HBCUs (Norwood, 2011).

Summary and Transition

In this chapter, I reviewed past research studies that investigated sexual risk behaviors, HIV knowledge, and HIV testing practices among African American female students who attend HBCUs. Researchers found that HBCU students are more likely to contract HIV and AIDS than other ethnic groups. After examining HIV testing within the students who attend HBCU, several studies revealed that HIV testing among African American female students who attend HBCUs has not been well characterized.

There have been numerous studies that measured the awareness of HIV and AIDS among HBCU students. In these prior research studies, it was revealed that students, particularly female students have a moderate knowledge level regarding HIV and its risk (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Payne et al., 2006). It has also been revealed that these students are aware of HIV testing resources (Chng, Carlon, & Toynes, 2006; Davis, Sloan, MacMaster, & Kilbourne, 2007; Payne et al., 2006). Recent studies have been conducted that investigated the attitudes, social norms, and perceived behavioral control of HBCU students related to HIV and HIV testing (Knussen, Flowers, & Church, 2004; Omer & Haidar, 2010).

Researchers also revealed that African American female students who attend HBCUs are at an increased risk of being infected with HIV and have pointed out some of the risky behaviors that occur more frequently among this population (Chng, Carlon, & Toynes, 2006; Ferguson, Quinn, Eng, & Sandelowski, 2006; Norwood, 2011; Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011). Behaviors that put African American female students who attend HBCUs at risk include having multiple sexual partners, engaging in sexual activity while under the influence of drugs and/or alcohol, engaging in sexual activities with someone previously incarcerated and bisexual men, having had a STI and inconsistent condom use (Chng, Carlon, & Toynes, 2006; Ferguson, Quinn, Eng, & Sandelowski, 2006; Norwood, 2011; Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011). Gender ratio imbalance was investigated and researchers found that gender ratio imbalance on HBCU campuses were linked to inconsistent condom use, “man sharing” and increased HIV infection among the African American female students (Ferguson, Quinn, Eng, & Sandelowski, 2006).

It is important to understand attitudes toward HIV testing and how African American female students who attend HBCUs make the decision of whether to be tested for HIV. In the next chapter, I discuss the study methodology, setting, sample, instrumentation, and analysis which were used to gain this more in-depth understanding of the factors and attitudes associated with HIV testing decision making among African American female students who attend HBCUs.

Chapter 3: Research Methods

Introduction

The overarching objective of this work was to investigate factors that influence the attitudes of African American female students who attend HBCUs and their decision to seek HIV testing. In this chapter, I outline the qualitative method used to answer the research questions of the study. The rationale for choosing the study design is also discussed. This chapter consists of the description of the research design and rationale, role of the researcher, methodology, participant selection logic, instrumentation, recruitment, participation and data collection procedures, data analysis procedures, issues with trustworthiness, and ethical procedures.

Research Design and Rationale

A qualitative design was used in this study to obtain a description and understanding of the attitudes of African American female students who attend HBCUs toward HIV testing and what influences the decision of these students regarding HIV testing. There is a need for a more in-depth understanding into the factors that influence HIV testing practices among African American female students who attend HBCUs, as most previous studies are quantitative (Norwood, 2011).

While both qualitative and quantitative designs represent sound approaches for conducting research, each have distinctive features that should be considered for their appropriateness in addressing specific forms of research inquiry (Creswell, 2009; Hogan, Dolan, & Donnelly, 2009). Whereas quantitative methods lack the ability to provide fully descriptive accounting of the thoughts, beliefs, and experiences of participants, qualitative research can provide a methodological solution to overcome this dilemma and can produce insight and meaning into a phenomenon from the viewpoint of individuals (Creswell, 2009; Hogan, Dolan,

& Donnelly, 2009). Qualitative inquiry focuses on in-depth exploration of a subject and is capable of providing in-depth knowledge of behavioral causes (Creswell, 2009; Hogan, Dolan, & Donnelly, 2009). Furthermore, this design allows for deeper exploration of attitudes, values, and perceptions (Creswell, 2009). It allows the researcher "to get to the heart of what exactly led to decisions or choices" (Hogan, Dolan, & Donnelly, 2009, p.15).

Qualitative research methods embraced the purpose of this study through its ability to provide insight into the meanings of attitudes, decisions and actions. Therefore, the following research questions were answered by using this study design:

RQ1: What factors do African American female students who attend HBCUs consider when making the decision of whether to engage in HIV testing on and off the college campus?

RQ2: What are the attitudes of African American female students who attend HBCUs regarding the importance of HIV testing?

Consistent with other characteristics of qualitative research methods, this study allowed individuals to be active participants rather than subjects (Hogan, Dolan, & Donnelly, 2009). The attitudes and experiences described by the study participants were analyzed in relation to qualitative variables which contribute to testing-seeking behavior. By conducting in depth individual interviews, I explored the attitudes of African American female students who attend HBCUs toward HIV testing and provide insight into how they make their decision as to whether to engage in HIV testing. Interviewing allowed me to develop a deeper and better understanding of how attitudes and identified factors impact African American female students' intent and decision to engage in HIV testing by allowing participants to share their personal experience, beliefs, and perceptions of HIV testing.

The phenomenological approach was used in the study to gather data and perceptions (Creswell, 2009). The phenomenological approach is based in a paradigm of personal knowledge and subjectivity, and emphasizes the importance of personal perspective and interpretation (Creswell, 2009). This approach was used to understand how attitudes and identified factors affect African American females attending a HBCU's intent and decision to engage in HIV testing by allowing participants to share their personal experience, beliefs and perceptions of HIV testing. One of the aims of this study was to investigate HIV testing decision making from the viewpoint of participants; phenomenology appears to be the appropriate choice for this study. The use of a phenomenological approach was intended to encourage the participants to express how their personal thoughts, attitudes, and beliefs contribute to their testing-seeking behavior. By following the phenomenological approach, this study combined the experiences and attitudes of many individuals into a singular expression (Creswell, 2009). The combining of experiences into a common position can be useful in developing interventions or pursuing additional research on the subject matter (Creswell, 2009).

Role of the Researcher

In this study, I recruited study participants, developed interview discussion guides, conducted individual interviews, analyzed findings, and prepared reports (Creswell, 2009). Researchers must be culturally competent and empathetic with the study population in order to choose the best method to approach the subject matter (Creswell, 2009). I had no relationship with participants and HBCUs outside of this study.

The concept of HIV can be a sensitive subject to discuss (Chng, Carlon, & Toynes, 2006). I assumed that the data collected were accurate and that the study participants were honest in their answers. In order to increase the likeliness that participants answered honestly, prior to conducting the study they were informed that all collected, transcribed, and coded data would be anonymous and confidential.

Methodology

Participant Selection Logic

Study participants were African American female students who attended a public HBCU. Purposeful sampling was used in this study and participants met the inclusion criteria. Inclusion criteria for participants were as follows. Each participant must have been: (a) enrolled in the HBCU as a part-time or full-time student, (b) Black and/or African American female, (c) over the age of 18, and (d) an undergraduate. Prior to beginning the interviewing session, each participant provided demographic information by completing a survey. Both passive and active recruitment strategies were implemented in the recruitment process of this study. The passive strategy included posting a recruitment flyer which was approved by the IRB. The flyers were posted to announce the interviews. The flyer displayed an overview, the offer of monetary compensation upon participation in the study, dates interviews would be conducted, and pull tabs to included my contact information. Flyers were posted at local libraries, churches, laundromats, apartment complexes, salons, coffee shops, and bus stops visited by college students or within a close radius to the campus of a HBCU campus. In addition, more active strategies were used such as providing various organization and community leaders/members with a recruitment flyer and letter to announce to students about the opportunity for study participation. The email included the purpose of the study, inclusion criteria, and invitation to participate. Because of the low participation of African American HBCU students in research (Yancu et al., 2011), each recruitment method included providing potential participants with an overview of the study, information on the incentive for participation, and an invitation to contact me with questions. It was suggested that students are more likely to participate when more information is provided (Yancu et al., 2011).

In research, samples are used because it is not possible to collect information from the total population (Creswell, 2009). Qualitative research focuses on analyzing data from relatively small, non-random samples (Hogan, Dolan, & Donnelly, 2009; Ulin, Robinson, & Tolley, 2005). According to Creswell (2009), the recommended sample size for phenomenology studies is 6-10 participants. In this study, 14 individual interviews were conducted. Qualitative samples must be big enough to increase the likeliness that most or all of the factors and attitudes that might be important are provided (Ulin, Robinson, & Tolley, 2005). It is believed that this sampling was appropriate. The decision as to whether to expand the sample size was made based on the data obtained and the degree in which incoming data adequately answered the research questions and ensure saturation (Ulin, Robinson, & Tolley, 2005). After the interviews were conducted, the analyzed data was reviewed to determine if new themes were found. When themes became recurring and consistent among participants, five additional interviews were conducted. This process was repeated until no new themes were introduced by participants.

Instrumentation

The instruments used in this study included the participant demographic survey and the interview protocol. The participant demographic survey and interview protocol were designed for this study. The first instrument, the demographic data survey, was a self-administered questionnaire designed to collect demographic data. The survey was designed to capture data such as (a) age, (b) marital status (c) health insurance status, and (d) history of HIV testing. This survey was reviewed by me after the interview and provided additional demographic and background information about participants.

The interview protocol consisted of a listing of the interview questions and follow up questions that were used by me during interviews. The interviews consisted of a series of open-ended questions that allowed the women to respond to questions using their own words, beliefs, and experiences. The questions were developed based on topics identified in the reviewed literature as being associated with African American female students who attend HBCUs and HIV. Open-ended questions were useful in gathering opinions and information from individuals who have knowledge on a subject matter.

Procedures for Recruitment, Participation, and Data Collection

After making contact with participants who met the study eligibility criteria, a day and time for the interview was scheduled. Locations for interviews were secured and provided to participants along with directions. Participants were also contacted by telephone and/or email 1 day before and day of the scheduled interview as a reminder and confirmation. For interviews scheduled 3 days or more after the initial call, participants received a confirmation letter by mail if participants chose to provide address. The participant demographic survey was completed by participants upon arrival to interview locations and before the interview began. Interviews were audio recorded and notes were taken as well, to enable me to review notes and ensure that no important data were omitted. Individual interviews were structured to last between 60 and 90 minutes. Upon exiting the interview, participants were given the chance to ask questions or make additional comments related to the use of data. No follow- up interviews were required.

Data Analysis Plan

As suggested by Creswell (2009) and Ulin, Robinson, and Tolley (2005), several steps were required in analyzing qualitative data and results into the effective interpretation of data. In qualitative research, it is not necessary to defer data analysis until the data collection phase has been completed (Creswell, 2009; Ulin, Robinson, & Tolley, 2005). In this study, the process of data analysis was completed concurrent with data collection. Initiating data analysis during the data collection phase gave me an early opportunity to adjust the methods before the data collection process was finished (Ulin, Robinson, & Tolley, 2005).

One of the first actions in analyzing the qualitative data was reading the textual data obtained from participants from an analytical perspective (Ulin, Robinson, & Tolley, 2005). This step in the data analysis process was gradual as data were being collected. Transcripts and notes were read as often as needed. As data were being read, the opportunity was provided to examine the kind of information being collected the effectiveness of the interviewing style, the depth of responses and the note taking approach (Ulin, Robinson, & Tolley, 2005).

Next, through a series of coding actions, the data were consolidated into themes (Creswell, 2009). Coding is the repetitive process of analyzing qualitative data to locate groups of textual data that are relevant to the study question (Ulin, Robinson, & Tolley, 2005). Coding requires textual data to be analyzed individually and collectively across cases (Ulin, Robinson, & Tolley, 2005). NVivo Version 10 was used for the coding of key words, ideas, or categories. The software helped me manage, shape, and make sense of unstructured information. The software provided a workspace that enabled me to classify, sort, and arrange information

Technology has brought the field of research excellent innovations such as software to organize and audit qualitative analysis. The software helps researchers to manage, shape, and make sense of unstructured information (Ulin, Robinson, & Tolley, 2005). Data from individual interviews were imported into the system. Data from interviews and the participant demographic survey were also in a Microsoft Word document and Nvivo.

Issues of Trustworthiness

Reflexivity was used to provide credibility and conformability to the study. Through journal writing, I was able to better examine what I knew and how I came to know it. In addition, reflexivity allowed me the opportunity to identify and process biases, feelings, and thoughts, so an understanding could be established as to how the research might have been impacted (Ulin, Robinson, & Tolley, 2005). A strategy used to establish transferability was thick description. The thick descriptions provided a rich, detailed description of settings, participants' backgrounds, and experiences. According to Creswell (2009), when using thick descriptions "the results become more realistic and richer" (p. 192). In promoting dependability it is important to be consistent with how data are handled (Ulin, Robinson, & Tolley, 2005).

Ethical Procedures

One of the most important objectives of this study was to ensure that all study participants were treated fairly and that their interests were protected and participants were not subjected to physical harm (Ulin, Robinson, & Tolley, 2005). The data acquired in the study included human subjects' data that required IRB approval. Approval to conduct the study was obtained from Walden IRB before recruiting study participants or engaging in any study specific activities. An application and all materials designed to be used in this study were approved by the Walden University IRB. Walden University's IRB approval number for this study was 07-07-14-0187861.

Each study participant was informed of the nature and objectives of the study and gave written permission to participate in the study. The informed consent process also included outlining the risks and benefits of participating in this study, providing adequate information addressing questions and concerns, and obtaining the participant's voluntary agreement to participate (Creswell, 2009; Rudestam & Newton, 2007). This information was provided in the informed consent form. Each participant read the form and was encouraged to ask questions. It was also explained that participants may stop or withdraw from interview at any time. Each study participant was provided a copy of the signed consent form and a copy was retained by the investigator.

To protect anonymity, a unique number was assigned to each participant and written on all data collection tools. Only I had knowledge of the numbering system. A separate document that links the study code to the participant's identifying information is locked in a separate location from the data with restricted access to this document. Records of results were labeled and stored as hard copy and digitized files. Data from the demographic survey was entered into a password-protected electronic spreadsheet on a password-protected computer, along with all electronic data. The password is known only by me. All hard copy forms, including original data notebooks and questionnaires were retained in secure, locked, fireproof file boxes and locked file cabinets with electronic data backed up for five years. File boxes and file cabinets are located in my locked offices in different locations. It is important that only I have access to the study data.

Participants received a $10.00 fee to cover transportation expense. To prevent the existence of a conflict of interest, no outside parties contributed any financial or other resources in support of this study. This information was provided on the recruitment material. In some cases, participants are more likely to participate when an incentive is provided (Grant & Sugarman, 2004). There should be no concern related to the incentive provided in this study because the participants were not in a dependency relationship with me, the risks of this study were not particularly high, the research was not degrading, and the participants did not receive a relatively large incentive (Grant & Sugarman, 2004).

Summary

The goal of this study was to discover factors that influence the attitudes of African American female students who attend HBCUs and their decision to seek HIV testing. An overview of the research design and rationale, the role of the researcher, and methodology for this study were discussed in this chapter. Interviews were strategically chosen to answer research questions because it lends itself to obtaining more in-depth data and understanding in to the factors that influence HIV testing practices among African American female students who attend HBCUs than a quantitative method would offer.

Also discussed were the participant selection logic and strategies which was used for recruiting participants. The instruments used to collect study data included participant demographic data survey and the interview protocol. Data collection and data analysis procedures were detailed to provide an overview of how data were obtained and used to answer the research questions. As discussed above it was important to ensure that all study participants are treated fairly and protected. Ethical procedures, which were used to ensure trustworthiness, including IRB approval from Walden University, were discussed in this chapter.

Chapters 4 and 5 are structured around the research questions in this study and the findings are reported and discussed. Personal experiences, thoughts, and attitudes shared by participants are also included in the next chapter. In Chapter 4, I provide details regarding the demographics of participants, themes that emerged related to the decision making of African American female students who attend HBCUs related to HIV testing, answers to research questions, data supporting findings, and evidence of trustworthiness.

Chapter Four: Results

Introduction

This chapter presents the findings from in-depth interviews with African American female students who attend HBCUs. The purpose of this study was to develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. The women provided information regarding their attitudes and experiences related to HIV testing by responding to eight major questions and a number of subquestions. In this chapter, I present and describe the results of this qualitative research study. I also describe the research instrument, community partners, setting, recruitment, data collection process, qualitative data analysis, and the evidence of quality in this chapter. Interpretation of the data is discussed in Chapter 5.

Between February and April 2015, I conducted digitally recorded one-on-one, face-to-face, open-ended interviews with 14 African American female students who attend HBCUs. In-depth interviews were conducted in private rooms at local public libraries located in southeast Texas.

The phenomenological approach was used in the study to gather data and perceptions (Creswell, 2009). This approach was used to understand how attitudes and identified factors affect African American females attending a HBCU's intent and decision to engage in HIV testing by allowing the women to share their personal experience, beliefs, and perceptions of HIV testing. The use of a phenomenological approach is intended to encourage the women to express how their personal thoughts, attitudes, and beliefs contribute to their testing-seeking behavior. By following the phenomenological approach, this study aims to combine the experiences and attitudes of many individuals into a singular expression (Creswell, 2009).

Research Tools

I developed a participant demographic survey and an interview protocol for this study. The demographic data survey was designed to capture data such as (a) age, (b) marital status (c) health insurance status, (d) history of HIV testing, (e) perceived risk level, and (f) number of sexual partners. The interview protocol includes a listing of the interview questions and follow-up questions which were used during interviews to answer the following research questions:

> RQ1: What factors do African American female students who attend HBCUs consider when making the decision of whether to engage in HIV testing on and off the college campus?
>
> RQ2: What are the attitudes of African American female students who attend HBCUs regarding the importance of HIV testing?

Community Partners

I collaborated with three community partners--- two public library systems and one church--- who offered use of facilities to conduct interviews. Before requesting approval of community partners from the IRB, I reached out to six potential community partners by telephone to introduce myself and explain the central purpose of the study. After speaking to four community partners, I sent a letter of cooperation. I received three signed letters of cooperation back. Before conducting any interviews, I contacted the community partner to set up a time to conduct interviews and reserve rooms.

To recruit women, flyers were posted at local libraries, churches, laundromats, apartment complexes, salons, coffee shops, and bus stops visited by college students or within a close radius to the campus of a HBCU campus. Permission was obtained from owners, administrators and/or mangers at salons, apartment complexes, coffee shops, libraries, laundromats, and churches. Recruitment emails were also forwarded by leaders/members of various community, religious and professional organizations, and sororities.

Study Setting

Interviews were conducted in quiet places with limited distractions. Interviews were conducted in a private room at local libraries within one public library system in Southeast Texas. Rooms at the libraries were reserved through an internet program that monitors room request for libraries in the public library system and through email correspondence with library branch personnel. The location of library was chosen according to proximity of the student.

Data Collection

The data collection procedures were conducted as planned for the study. I established a rapport by thanking the women for their time and creating a comfortable environment in which they felt free to express their opinions. I provided a clear description of the research questions and reminded the women of the confidential nature of the study. I explained the purpose of the study prior to beginning the interviews to ensure that the women were advised of the voluntary nature of their participation and of the guarantee of complete confidentiality.

The women were informed that codes would replace real names within the transcripts and all data. I explained that all notes, consent forms, audio recordings, flash drives, and transcripts would be stored in a locked filing cabinet, be accessible only to the me, and be password protected. Consent forms were reviewed at the beginning of each interview and signed by each woman. I transcribed each interview and stored all data in a locked filing cabinet that I only have access to.

Demographic data such as age, marital status, health insurance coverage, HIV testing history, engagement in risky behavior, and number of sexual partners were collected using a participant demographic survey prior to the interview. These data provided a general description of individuals who participated in the study.

Participant Selection

Purposeful sampling techniques were used to identify eligible study participants. Eligible study participants were (a) enrolled in a HBCU as a part-time or full-time student, (b) Black and/or African American female, (c) 18-29 years old, and (d) an undergraduate. Also, each woman received $10.00 for their time at the end of the interview. The women were also informed that no identifying information pertaining to their names or anything else that could identify them will be included in the study reports. All of the women participating in this study ($N = 14$) received a copy of the consent form.

The sample size was large enough to answer the proposed research questions and I reached saturation with 14 when no new information was being obtained from the interviews. The interviews were conducted at quiet places with limited distractions such as a meeting room in a public library. Each interview was audio recorded. Interviews were expected to last 60 to 90 minutes. The length of interviews ranged from 32 to 76 minutes. The average length of interviews was 44 minutes.

Field notes were also taken at the end of each interview to capture nonverbal reactions of the women. In these notes I also provided my overall perceptions. Each audio recording was then transcribed verbatim and saved in a Word document. All transcripts of audio recordings and field notes were uploaded to NVivo10 for Windows for data management.

Coding Analysis

The interview transcripts were analyzed through a multi-step process. The process of data analysis involved reading each transcript multiple times to gain an understanding of what the data were providing. The process also involved highlighting and making notes of statements made by the women that had relevance to how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. Information was deemed irrelevant if it did not address the research question.

To code the data, transcripts were imported into NVivo 10. The software was used to assist in storing and organizing the data, which allowed me to easily identify relevant statements, themes, and patterns in the data. Then sections of the transcripts were selected and posted under a heading that summarized the idea of that statement; in some cases, it was put under more than one heading, depending on if more than one idea was noted in the statement. If the headings were not already existent, then I created the heading and put a description under it. If the heading (or a similar one) already existed then I pasted it under the existing heading. A log of the headings and the number of people who stated the information was kept in the NVivo program. This was done during the coding so that I could easily see the categories, trends, and the frequencies at the end of the analysis. Although some statements occurred only once, they were important enough to the women to be mentioned. The software also allowed me to locate specific examples of the relevant data and themes within the transcripts, which were used to support the analysis and add depth of understanding to the results.

The process of data analysis involved categorizing data into thematic categories. Responses of the women were coded and documented for frequency determination across all interviews. The data were then categorized into related thematic categories and continually compared to other statements to reveal the themes related to the research questions across the entire sample. For this study, if a response was stated it was qualified as a response that could contribute to the development of a theme. Although all of the themes did not emerge from responses that were equally shared by all of the women, each theme is a representation of similar responses from at least two of them. These themes were used to address the two research questions.

Research Findings

In the following section, I present the study findings and they are divided into two sections. I display basic demographic information, such as age, marital status, insurance coverage, HIV testing history, and number of sexual partners in the first section. This is followed by a section where I answer the two research questions. The themes gathered were identified from reviewing the transcripts and are presented throughout the findings to provide richer details. All the responses are direct quotes from the women's perspective.

Demographic Data

Demographic data were collected by the women completing a participant demographic survey. The demographic data reported by the women are presented in Table 2. A total of 14 (*N* =14) African American female students who attend HBCUs agreed to be interviewed after reading and signing informed consent documentation. The participants interviewed in this study are 1) African American, 2) female, 3) enrolled in HBCU, and 4) 18-27 years old. The average age among the women interviewed was 20.7 years. All 14 women described their marital status as single. They also reported health insurance status, testing history, perceived risk level, and number of sexual partners within the past year. All 14 women were enrolled at HBCUs in three states listed in Table 1 discussed in Chapter 2. The interpretation of demographics will be discussed in Chapter 5.

Ten of the women reported having health insurance coverage and being previously tested for HIV. Three women responded yes to the survey question, "Do you feel that you are at risk for HIV?" In addition, they reported the number of partners they had sex with, ranging from 0 to more than 5. Each woman was assigned a name as their study ID for reporting purposes.

Table 2

Demographic Characteristic of Participants

STUDY ID	Age	Marital Status	Do you currently have health insurance?	Have you ever been tested for HIV?	How many different sexual partners have you had in the past year?
Erika	25	Single	Yes	Yes	3
Tiffany	19	Single	Yes	Yes	8
Amber	18	Single	No	Yes	1
Kristen	21	Single	Yes	Yes	1
Kim	21	Single	Yes	No	0
Brittany	23	Single	Yes	No	0
Veronica	22	Single	No	No	2
Danielle	27	Single	Yes	Yes	"MANY"
Wendy	19	Single	No	Yes	NA
Lauren	20	Single	Yes	Yes	1
Allison	18	Single	No	Yes	>10
Mary	21	Single	Yes	Yes	NA
Briana	19	Single	Yes	No	1
Emily	18	Single	Yes	Yes	1

Note. NA=No answer

Themes

Each interview was carefully analyzed. In order to answer this research question, I asked a series of open-ended interview questions from the interview protocol. At times during the interviews I used probes and follow-up questions to obtain a more detailed explanation. The following section analyzes the responses of the women and the common themes identified. An interpretation of the data based on the research questions and themes will be provided in Chapter 5.

Research Question 1.

The data collected from the 14 interviews answered the following two research questions. The first research question was what factors do African American female students who attend HBCUs consider when making the decision of whether to engage in HIV testing on and off the college campus? The most commonly reported factors considered in making a decision were perceived risk level, testing location, confidentiality, and being impacted by personal experience or experience of others.

In the beginning of each interview, I asked all the women who they thought should be tested for HIV. The responses varied from “everyone” to “everyone who is having sex” to being detailed as to whom they feel should engage in HIV testing. The majority of the responses were associated with sexual behaviors specifically behaviors which the women felt would put an individual at higher risk of being exposed to HIV.

Perceived Risk Level.

Perceived risk level was most commonly indicated as being a factor in making the decision to be tested for HIV among participating women. For the women in this study, risk levels were based on sexual behaviors and their engagement in behaviors that put them at risk of exposure to HIV. Half of the women reported that individuals who engage in high risk behavior should be tested for HIV. Descriptions of risky behavior varied to include having vaginal or anal sex without a condom, having sex with someone who is HIV positive, having sex with more than one person, using needles for drug use, having sex with men who have sex with men, or men that have been incarcerated.

Five of the 14 women reported that they have engaged in behaviors that increase their chance of being infected with HIV. The most common behavior reported was having unprotected sex. Regarding condom usage, Tiffany stated:

> I try to use protection, but if I've been with someone for a while we may not use a condom. Sometimes we may not have one or sometimes you've been hanging out in the club and been drinking. When we get back it's easy to start something and not use a condom or protection. Sometimes he may not want to use it.

In addition to condom use, the number of sexual partners impacted the decision to be tested for HIV. In the interviews, the women who reported having multiple sexual partners felt as though they were at higher risk of being exposed to HIV than those who were in relationships or have not engaged in sexual activities.

The women were then asked if HIV testing is discussed with partners or potential partners. Of the 12 women who have been sexually active, four reported that HIV status and/or testing is always discussed with partners. Wendy reported that she is tested prior to engaging in sexual relationship with a new partner and requires that the potential partner does the same. She stated that:

> If he has not been tested or is not willing to get tested we will not be having sex. I also tell them that testing is free and you can get results in a few minutes. There is no excuse not to get tested.

Testing Location.

When asked if testing services are available in their community and/or university all of the women reported being aware of HIV testing resources and locations. Allison replied that "there are so many ways and places to be tested. Lack of opportunities cannot be an excuse for not being tested." The majority (*N*=13) were aware of HIV testing services being accessible on-campus. The student health services on-campuses were reported to be supportive of HIV testing by all of the women. On-campus testing services are available in the student health center and periodically at health fairs.

In addition to health services being supportive, it was also reported by the women that overall students support HIV testing on-campus. On some campuses student organizations exist to promote HIV awareness and testing. Regarding student support, Erika stated that "they provide testing on-campus and different student organizations encourage us to get tested. There are also peer groups on-campus which discuss testing and prevention."

Two of the women, Kim and Tiffany, reported that there is too much focus on HIV testing and not enough focus on prevention and the promotion of abstinence. Kim, a member of a support group for students who practice abstinence, stated that there needs to be less support of HIV testing and more effort put into "having the same amount of abstinence programs as HIV education and testing programs. We have groups on-campus, but we do not receive a lot of support for other students and administration."

Although on-campus services are available and often provided at no cost, off campus testing was the preferred option for some. It was reported by the women that testing services were available at medical and/or public health facilities, such as a physician's office, hospital, STI clinics, public health center, church, and home testing. Tiffany stated that "for a long time, I would give blood so I could be tested, because I knew they test the blood. I know some people who have found out their status from blood drives. I've also been tested at health fairs and my church."

The women who were aware of locations where HIV testing services were offered were then asked a follow up question of how they learned of the availability of services. Printed materials such as posters and flyers were the most common source of awareness of these locations (*N*=11). Almost half of the women (*N*=6) learned of the locations from the Internet. Internet sources included HIV testing location search sites, search engines, and other websites. Kristen reported that testing locations can be found “at websites like knowyourstatus.org.” Other sources that contributed to the women being aware of testing locations include media and word of mouth from family, friends, instructors, organizations, university/college representatives, and health professionals.

Confidentiality.

Although the women were aware of testing options on and off campus and many have used these services, confidentiality of testing was also a concern. Some women reported that it is important to feel as though they have privacy and confidentiality at locations where they are tested. Confidentiality was reported as a concern among women who live in or attend small communities, small universities or health centers where student workers are present. Danielle and Tiffany reported not being tested on-campus. Danielle refused to be tested on-campus because of student workers being employed there. She stated “I don’t believe it’s always confidential. I think there needs to be more privacy.” Tiffany stated that she is tested at her doctor’s office “because I don’t trust these people at this school. This is a small campus and I feel like anyone can get access to your records… I don’t trust these people at this school.”

Unlike some of the other women, Lauren who was last tested at the office of her physician’s office in her small hometown, reported being more comfortable being tested on-campus due to issues of privacy. She reported that “It’s a small town with only two doctors. If I thought I may have had a chance of being positive there is no way I would have even gotten tested there because everyone knows your business."

Impact of personal experience or experiences of others.

It was also reported by some of the women that their decision to be tested was based on being personally impacted by HIV or knowing someone who has been impacted. During her interview, Kristen reported that her decision to be tested for HIV and behavior were influenced by supporting a relative who is HIV positive. Kristen discussed her cousin being diagnosed with HIV after her husband was exposed to HIV as a result of having an affair. Kristen and her family have been supportive of her cousin. Kristen stated that "I figured if it can happen to her it can happen to anyone. At that point I decided to start getting tested annually and be very picky in the choices I make regarding sex." Regarding HIV positive individuals who she knows Tiffany stated "I've seen their struggle."

Wendy and Emily have experienced "personal scares" which required them to be tested for HIV. Regarding a personal experience impacting her attitude toward HIV testing, Wendy stated that:

> I think my attitude came from my own personal scare that I had one time when I thought I may have been infected. I was told by a friend that my ex tested positive. That was one of the worse days of my life… When I finally went to be tested, I was so afraid and nervous. But I must admit that after getting my negative results, I chose to make better decisions.

Like Wendy, Emily also had an experience where she was advised to get tested for HIV due to ex-boyfriend and sexual partner being potentially HIV positive. She reported that although she got tested and the result was negative she "felt scared, hopeless, numb, embarrassed, mad, and sad" and now knows the importance of HIV testing. Emily also reported that she now advises others to get tested regularly.

Research Question 2.

The second research question was what are the attitudes of African American female students who attend HBCUs regarding the importance of HIV testing? The women reported that they feel as though HIV testing is important and necessary for individuals who are sexually active or engage in high risk behaviors. Some of the women also pointed out the impact that early and regular testing has on treatment and prevention of additional exposure. Tiffany stated that her attitude regarding HIV testing is that "It's a good thing and everyone should be tested. I know some people who are positive and have seen the difference in the affects caused by treatment and finding out if you have it early. I get tested regularly and would encourage others to get tested regularly."

Five of the women stated that HIV testing is scary. Some of these women also reported that many individuals choose not to be tested out of fear of the testing and/or results. Amber, an 18-year-old woman, reported that HIV testing is important, but "for many people it is scary and that may be why so many people choose not to be tested."

Two of the women, Kim and Brittany, reported never having sex. They stated that they understood the severity of HIV, but felt that there should be less focus on HIV testing and more focus on prevention and abstinence programs. Kim stated "there needs to be more efforts to push prevention. We have groups on-campus, but we do not receive a lot of support for other students and administration."

The women were also asked what contributed to their attitudes toward HIV testing. Kim and Brittany stated that attitudes and behaviors were influenced by their religion, morals, and belief in personal responsibility. Brittany responded “there wouldn’t be a need for it if people were careful, did not sleep around and use protection.” The media was also reported to have impacted the attitudes, and feelings toward HIV testing of the women. The media included television, magazines, Internet, and radio.

Media.

Half of the women reported that the media has contributed to the development of attitudes and feelings toward HIV testing. The media as reported by the women included television, magazines, Internet, and radio. Specific movies, television programs, commercials, PSAs, radio broadcast, Internet videos, and magazine articles were also mentioned by some of the women. Danielle recalled how her attitude changed after reading a recent article in a magazine which provided an update on an African American woman who was profiled 20 years ago about her experience of living with a diagnosis of HIV. She added that she now knows that “HIV no longer equals death if caught early.”

Social media was reported by Emily as influencing her attitude regarding HIV testing. She stated that she is following a group on a social media site that provides information on health issues concerning African Americans. She reported that often the information and stories posted spark debates and conversations regarding sensitive topics such as HIV and HIV testing.

Family.

Family views and beliefs were also reported to contribute to attitudes toward HIV and HIV testing during interviews. Kristen reported that her family is supportive of testing since her cousin was diagnosed as being HIV positive. For other women such as Brittany and Veronica, their families associate HIV and HIV testing with promiscuity. Brittany reported that because her parents “raised her right” and she stands by the morals they taught her, she has only engaged in sex with her current boyfriend and is not at risk.

Like Brittany, Veronica also reported that her family influences her attitude her attitude regarding HIV testing. Veronica stated “my family and friends have a lot to do with my feelings. If my family finds out about me getting HIV testing, they will think that I’m promiscuous or that I have AIDS or worse.”

Printed Educational Materials.

Printed educational materials were mentioned as a factor that has contributed to the attitudes of the women interviewed in this study and what they know about HIV and HIV testing. In this study printed education materials included textbooks, pamphlets, brochures and posters. The women who reported that printed education materials contributed to their attitudes have received this information from classes, health professionals, family, on-campus groups, and health centers. Amber, a nursing student, reported that her attitude toward HIV testing became more positive and accepting due to information that she has read in some of her classes and volunteering at a community health clinic. Lauren reported that in the past she thought that only people who were exposed to HIV needed to be tested. Lauren has changed her attitude and opinion regarding HIV testing since receiving “correct information” in recent sexuality and health classes.

All of the women interviewed in this study reported that they are aware of the severity of HIV and the importance of HIV testing. Although all of the women stated that HIV testing is important their attitudes varied regarding the support of HIV testing that should be provided by the HBCUs. When asked how these attitudes were developed the women reported various factors including media, family, and printed materials.

Evidence of Quality

In order to ensure this study was credible, confirmable, dependable and transferable certain techniques were used throughout data collection and data analysis. The techniques used in this study included reflexivity, thick descriptions and the use of a digital audio recording device.

Reflexivity was used to provide credibility and conformability to the study. Through journal writing and field notes, I was able to better examine what I know and how I came to know it. As I read and reread transcripts I had to continually think about how my own beliefs about HIV testing might influence the interpretations. Notes were taken during the interview on the interview guide and during data analysis. Through reflexivity I was able to identify, monitor and process biases, feelings, and thoughts (Ulin, Robinson, & Tolley, 2005). A strategy used to establish transferability was the use thick descriptions. The thick descriptions included providing a rich, detailed description of the data from the woman's perspective to describe the research context and the assumptions that were central to the research. According to Creswell (2009), when using thick descriptions "the results become more realistic and richer" (p. 192). This study includes verbatim transcriptions of each interview to provide contextual and detailed data.

In promoting dependability, it is important to be consistent with how data are handled (Ulin, Robinson, & Tolley, 2005). Dependability was established through the use of the audio recording device with an external microphone to capture what each woman stated during the interview. The use of the audio recorder produced a more reliable account of the data collected. Audio recording also eliminated the dependence of recall basis after the interview. Reliability in research data refers to the degree to which an assessment consistently measures whatever it is measuring (Ulin, Robinson, & Tolley, 2005).

Summary

The purpose of this exploratory study was to develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. An overview of the processes used to collect, manage, and analyze data collected was provided in Chapter 4. The participating women were selected based on purposeful sampling techniques. Consent forms were reviewed with and signed by each woman prior to beginning the interview.

Responses from the in-depth interviews explored the attitudes of African American female students who attend HBCUs toward HIV testing and provided insight into how they make their decision as to whether to engage in HIV testing. Factors that contribute to African American female students who attend HBCUs consider making the decision of whether to engage in HIV testing were explored in the first research question. All of the women were aware of locations where HIV testing could be accessed. The attitudes of African American female students who attend HBCUs regarding the importance of HIV testing and factors which have contributed to the attitudes were explored in the second research question.

Evidence of quality was identified in the last section in this chapter. All interviews were audio recorded to ensure dependability by allowing me to capture accurate transcription of the interviews. An interpretation of the research study findings, limitations, recommendations, social change implications, and my experience was provided in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. HIV has become one of the world's most serious health challenges and an increasingly recognized public health priority among college students in the United States, particularly students enrolled in HBCUs (Chng, Carlon, & Toynes, 2006; Thomas et al., 2008). It is important for African American female students who attend HBCUs, to engage in routine HIV testing and know their HIV status based on the high prevalence rate of HIV and AIDS among African American women and the risk of engaging in risky sexual behavior in college. Previous studies have investigated sexual risk behaviors, HIV knowledge, and HIV testing practices among African American female students who attend HBCUs and found that HBCU students are more likely to contract HIV and AIDS than other ethnic groups. Understanding factors that impact the decision making of African American female students who attend HBCUs related to whether to be tested for HIV is essential in implementing interventions and strategies that will promote consistent HIV testing of this population

This study was based on the following research questions:

RQ1: What factors do African American female students who attend HBCUs consider when making the decision of whether to engage in HIV testing on and off the college campus?

RQ2: What are the attitudes of African American female students who attend HBCUs regarding the importance of HIV testing?

To answer these research questions, I used a phenomenological approach with in-depth, face-to-face interviews with 14 African American female students who attend HBCUs. By following the phenomenological approach, this study aimed to combine the experiences and attitudes of many individuals into a singular expression. The interviews were audio recorded to ensure accuracy in the verbatim transcription. I used NVivo10 for data management and data analysis on a password-protected computer.

In this chapter I will interpret the findings based on the themes identified in Chapter 4. This is followed by a discussion of the findings in relation to the theoretical framework used to guide the study. This chapter also includes the limitations of the study, recommendations for further research, social change implications, and my personal reflections while conducting the study.

Interpretation of Findings

Demographic

Demographic data were collected by the women completing a participant demographic survey. A total of 14 ($N = 14$) African American female students who attend HBCUs agreed to be interviewed after reading and signing informed consent documentation. All of the women provided a brief overview of their life by answering several demographical questions including age, marital status, health insurance status, testing history, perceived risk level, and number of sexual partners.

In this study, age, marital status, and health insurance coverage were not reported by the women as being factors associated with their decision of whether or not to be tested for HIV or their attitudes toward HIV testing. However, the women's HIV testing history, perceived risk level, and number of sexual partners were reported as being factors associated with the decision to engage in HIV testing and/or their attitudes toward HIV testing. From the reports of the interviewed women, the number of sexual partners contributed to their perceived risk level for having HIV. The women who perceived themselves as being at an increased level for getting HIV were more likely to report engaging in HIV testing. The women who reported having more sexual partners were more likely to engage in HIV testing and be accepting of HIV testing than the women who reported no or fewer reported sexual partners.

Research Question 1

Based on the analysis of the in-depth interviews, African American female students who attend HBCUs are aware of the importance of HIV testing and have access to testing resources. Among the women interviewed, 72% reported being tested for HIV. The majority of the responses regarding who should be tested for HIV were associated with sexual behaviors specifically behaviors which the women felt would put an individual at higher risk of being exposed to HIV. There were several factors identified by the women that are considered when choosing whether or not to be tested for HIV. Perceived risk level was most commonly indicated as being a factor in making the decision to be tested for HIV among participating women. Other factors included testing location, confidentiality, and personal experiences

Research Question 2

When asked to report their attitude and feeling regarding HIV testing the women reported attitudes of acceptance and positivity. Most of the women were aware that HIV testing is the only reliable way to determine HIV status and pointed out the impact that early and regular testing has on treatment and prevention of additional exposure. Although all of the women stated that HIV testing is important their attitudes varied regarding the support of HIV testing that should be provided by the HBCUs and the perceived social norm. It was mentioned that more focus should be put on toward promoting prevention and abstinence.

Theoretical Framework

The TRA/TPB guided the development of my research questions, data analysis, and discussion of findings. This theoretical framework was chosen for this study as it is a theory that has been found to be a better predictor of HIV health behavior than other models (Payne et al., 2006). Based on the findings of this study, the tenets of the TRA/TPB are effective in predicting the intent of African American female students who attend HBCUs to be tested for HIV. The leading predictor of the intent of African American female students to be tested was attitude determined by perceived risk, followed by perceived social norm, and perceived behavioral control.

The attitudes of African American female students toward HIV and HIV testing are important when making decisions related to testing. The TRA/TPB also suggests that attitudes toward a behavior are based on beliefs concerning the consequences of performing the behavior (Terry, Gallois, & McCamish, 1993). Similar to a study conducted by Payne et al. (2006) and Taylor and Jones (2007), this study found that many of the women were open to the idea of being tested for HIV, but the decision to decline HIV testing may be made due to concerns about testing positive and results being revealed to others. This means that African American female students who attend HBCUs are likely to decide to be tested for HIV if they anticipate more positive than negative personal outcome following testing.

Based on the TRA/TPB, results of this study and existing research, the decision to be tested for HIV is more likely to be made if there is perceived positive normative pressure (Chng, Carlon, & Toynes, 2006; Norwood, 2011). Therefore, African American female students at

HBCUs are more likely to engage in HIV testing and prevention programs if there is a perceived strong cultural norm on campus to engage in a behavior or program.

Additionally, in order for a behavior change to occur, it is also important for an individual to feel as though she can successfully execute the behavior required (Crepez & Marks, 2002; Omer & Haidar, 2010). Perceived behavioral control refers to the level of effort required to execute a behavior (Omer & Haidar, 2010). As found in studies which explored the behaviors of students at HBCUs, the ability to execute the behavior depends on whether knowledge and resources are present and accessible (Bazargan, Kelly, & Bazargan 2000; Payne et al., 2006; Thomas et al., 2008; Warren-Jeanpiere, Jones, & Sutton, 2011). African American female student who attend HBCUs are aware of the importance of HIV testing and have access to HIV testing locations.

Limitations of the Study

There were several limitations to this study. A purposeful sample was composed of African American female students who attend HBCUs. This type of sampling limits the generalizability of the study; therefore, the results should be applied with caution to other populations of women. The sample size is a limitation for this study, because only a small number of women shared their experiences regarding HIV testing. There is no guarantee that other African American female students who attend HBCUs in other geographic areas would have the same perceptions as the women who participated in this study. The women interviewed in this study were enrolled at HBCUs in states listed among the top states with higher rates of HIV where HIV and HIV testing has been a top focus. Also, the women shared retrospective self-reports of their sexual experiences which could not be practically or ethically validated.

Recommendations

In this study I explored how a limited sampling of African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. This study was conducted in southeast Texas. All 14 women were enrolled at HBCUs in three states listed on Table 1 discussed in Chapter 2. Future studies should be conducted to explore the perceptions for HIV testing among women of different geographical locations and women who attend private HBCUs. Future studies should be conducted to explore the perceptions HIV testing among women of different races. Such studies may serve to reduce infections in various populations.

Chng, Carlon, and Toynes (2006) found that men and women vary on their knowledge and attitudes about safer sex practices and HIV testing. In the African American community, high rates of incarceration, unemployment, gender ratio imbalance, and bisexuality among African American men have also contributed to African American females being at risk for HIV infection (Ferguson, Quinn, Eng, & Sandelowski, 2006; Freeman, 2010; McNair& Prather, 2004; Norwood, 2011). Because the women interviewed in this study reported having sex with men who had been incarcerated and have had sex with other women and men, future exploratory, qualitative studies should also be conducted to investigate the factors that influence African American male students who attend HBCUs to be tested for HIV. Such studies may serve to increase knowledge of the awareness and access of HIV testing in various populations and locations.

Implications for Social Change

The findings of this study have the potential to create positive social change by contributing to the existing information about HIV testing practices of African American female students who attend HBCUs. Additionally, the findings have the capability to enhance awareness of factors which contribute to the decision making of whether or not to be tested. The findings of this study also imply that educational messages should target attitudinal beliefs that women hold about the consequences of HIV testing and should be based on normative pressure to be an effective way to convince African American female students who attend HBCUs to test for HIV.

The positive social change implications for this study includes understanding the factors and attitudes associated with HIV testing decision making among African American female students who attend HBCUs. The knowledge gained from this study can also be used to help public health professionals, educators, community leaders, university personnel, policy makers, community organizations, and researchers develop the most effective strategies for the development and delivery of HIV testing messages that target African American female students who attend HBCUs.   I intend to disseminate the results of this study via multiple venues including local presentations, professional conferences, and peer-reviewed journals.

Researcher's Experience

In an attempt to reduce researcher bias and assumptions, I identified my preconceived ideas and perceptions about the participants and HIV testing prior to collecting data for this study. In order to reduce any bias and assumptions, I journaled my thoughts, perceptions, opinions, and feelings before data collection. During data collection, I also continued to maintain field notes and to journal at the end of each fieldwork day to reduce researcher bias. Finally, during data collection and data analysis I discussed my thoughts and beliefs with colleagues to set aside any preconceived ideas that may have interfered with the participant responses.

As the sole researcher and interviewer for this study, I felt a professional and personal responsibility to conduct the interviews in a manner which would allow the participants to share intimate experiences in as much detail as possible. My approach to this study was to be receptive to participants' discussion, but I had preconceptions that were influenced from personal experience and what I learned from the literature review. As a result, I allowed the participants to express themselves freely. I carefully probed to make sure that I did not have any influence on their responses. The discussions were also audio recorded and transcribed verbatim.

Summary

In conclusion, based on data analysis I was able to develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing. This study was an important step in exploring the reasons why women do and do not engage in HIV testing. Additionally, under the umbrella of Research Question 1 I found that African American female students who attend HBCUs have access to HIV testing, but there are factors that contribute to the decision of whether or not to use these services. The factors reported in this study include whether the woman feels as though she is at risk, the testing location, confidentiality, and personal experience. With Research Question 2, I explored the attitude of African American female students who attend HBCUs toward HIV testing. In this study, the women shared attitudes productive to the fight against this epidemic and are aware of the importance of HIV testing.

The conceptual framework used to guide the research questions and the basis for data analysis and discussion was the TRA/TPB. Based on the interpretation of the findings, the decision of the women of whether to be tested for HIV was strongly influenced by the individual's attitude toward the behavior, subjective norms around the performance of the behavior, and perceived behavioral control related to executing the behavior. The women had favorable attitudes, perceived strong subjective norms, and perceived fewer barriers to undertake HIV testing.

Lastly, Chapter 5 discussed recommendations for future research, several implications for social change, and my experiences as the researcher. The findings from this study contribute to the knowledge base of HIV testing among African American female students who attend HBCUs. The findings from this study can enhance awareness of the decision making process of African American female students who attend HBCUs regarding HIV testing. The results can also be used to influence university, local, and state approaches to promoting HIV testing and services provided.

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Appendix A: Consent Form

Factors that influence HIV testing among African American college women

PLEASE READ THE FOLLOWING INFORMATION CAREFULLY AND ASK ANY QUESTIONS THAT YOU MAY HAVE.

You are invited to take part in a research study to identify attitudes of African American female students who attend HBCU toward HIV testing and explore how the decision to engage in HIV testing is made. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by Brandi J. Sampson who is a doctoral student at Walden University under the supervision of Dr. Jeanne Connors.

Background Information:

HIV is a virus that causes acquired Immunodeficiency syndrome (AIDS). HIV is a STI that can also be spread by contact with infected blood, or from mother to child during pregnancy, childbirth or breastfeeding. The purpose of this study is to help develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing.

Procedures:

If you agree to be in this study, you will be asked to:

- Attend a 60-90 minute interview
- Respond to questions regarding your HIV experience and attitude
- Complete a demographic survey
- Consent to tape-recording of the session

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind later.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as becoming upset. You may stop the interview at any time. Being in this study would not pose risk to your safety or wellbeing.

One of the major benefits of participating in this study is that your thoughts and experiences will contribute to the advancement of knowledge on health issues affecting African American female students who attend HBCUs. Your participation demonstrates your support for increased understanding of this serious public health threats and the need for health education in solving these problems. Furthermore, this study provides an opportunity for you to reflect on factors that contributed to your behavior.

Payment:
At the conclusion of the interview, you will receive $10.00 to cover transportation expense.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by entering data into a password-protected electronic spreadsheet known only by the investigator. In addition, all hard copy forms will be secured in a locked cabinet maintained by the investigator. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via telephone or email. If you have questions about your rights as a participant, you may call a Walden University representative who can discuss this with you at 612-312-1210. Walden University's approval number for this study is 07-07-14-0187861 and it expires on July 6, 2015.

The researcher will give you a copy of this form to keep.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant ______________________________

Date of consent ______________________________

Participant's Signature ______________________________

Researcher's Signature ______________________________

Appendix B: Participant Demographic Survery

1. What is your age? _____

2. What is your current marital status?

   (a) Married ____

   (b) Single ____

   (c) Divorced ____

   (d) Widow ____

   (e) Separated ____

3. Do you currently have health insurance?

   (a) Yes ____

   (b) No ____

4. Have you ever been tested for HIV?

   (a) Yes ____

   (b) No ____

5. When was the last time you had an HIV test?

   (a) Within the past 12 months _____

   (b) More than 12 months ago _____

   (c) Not applicable _____

6. Do you feel that you are at risk for HIV?

   (a) Yes _____

   (b) No _____

7. Approximately how many different sexual partners have you had in the past year? _____

Appendix C: Interview Protocol

Interviewee ID number: _________________ Interviewer: ______________________________

Location: ____

Date: _____________________ Begin Time: ______________ End Time:________________

Part I.

The purpose of this study is to help develop a better understanding of how African American female students who attend HBCUs make the decision to engage in HIV testing and their attitudes toward HIV testing.

Part II.

Questions

1. Who do you think should be tested for HIV?
2. Where is HIV testing available in your community and/or at your school?
   - How did you become of this location/service?
3. Please describe your attitudes and feelings toward HIV testing?
   - What or who has contributed to the development of these attitudes and feelings toward HIV testing?
4. What is the most significant factor that contributes to your decision to be or not to be tested for HIV?
   - Why is this a factor significant in your decision making?
5. Are student health services and students at you university supportive of HIV testing?
   - If yes, how have they been supportive?
   - If no, why do you think there is a lack of support?

- What would you like to be done to increase the level of support provided to student health services and students related to HIV testing?

6. Do you discuss HIV status and testing with your sexual partner(s)?
   - If yes, who initiates the discussion? At what point in the relationship is this discussed?
   - If no, why is the topic not discussed?
7. Do you engage in behaviors that increase your chances of being infected with HIV?
   - If yes, what are some of these behaviors?
8. Thinking about everything you know about HIV/AIDS and HIV testing, where or who does this information come from?

Appendix D: Recruitment Flyer

INTERVIEW STUDY

Be a part of an important Study

- Are you a Black and/or African American female?
- Are you over 18 years of age?
- Are you an undergraduate student at a HBCU?

If you answered YES to these questions you may be eligible to participate in an exploratory study.

The purpose of this research study is to identify attitudes of African American female students who attend HBCU toward HIV testing and explore how the decision to engage in HIV testing is made.

The benefit of participating in this study is that your thoughts and experiences will contribute to the advancement of knowledge on health issues affecting African American female students who attend HBCUs.

Participants will also receive a monetary compensation.

Adults (18 years of age and older) are eligible. Interviews will be conducted on the following dates: _____.

The researcher is a PhD in Public Health student at Walden University and this study will be used for the researcher's dissertation.

Appendix E: Recruitment Email- Interview

To:
From:
Subject: Research Participation Invitation

You are invited to take part in a research study to identify attitudes of African American female students who attend HBCU toward HIV testing and explore how the decision to engage in HIV testing is made. You are eligible to participate if you are between 18-29 years old. This study is being conducted by Brandi J. Sampson who is a doctoral student at Walden University under the supervision of Dr. Jeanne Connors.

The purpose of this research study is to identify attitudes of African American female students who attend HBCU toward HIV testing and explore how the decision to engage in HIV testing is made. The benefit of participating in this study is that your thoughts and experiences will contribute to the advancement of knowledge on health issues affecting African American female students who attend HBCUs.

This study is voluntary and is anticipated to last 60-90 minutes. Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by entering data into a password-protected electronic spreadsheet known only by the investigator. Participants will also receive a monetary compensation.

Interviews will be conducted on the following dates: _____.

If you have questions about your rights as a participant, you may call a Walden University representative who can discuss this with you at 612-312-1210. Walden University's approval number for this study is 07-07-14-0187861 and it expires on July 6, 2015.

Questions about this research should be addressed to Brandi J. Sampson. Thank you in advance for considering this request,

Sincerely,

Appendix F: Letter of Cooperation from a Research Partner

From:
To:
Date:

Dear Brandi Sampson,

Based on my review of your research proposal, I give permission for you to conduct the study entitled Factors that influence HIV testing among African American college women. As part of this study, I authorize you to use the private rooms at local branches of the library system for interviews. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: allowing the use for a private room for interviews to be conducted. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Curriculum Vitae

Brandi Sampson

Education:

Doctorate of Philosophy, 2015
Public Health, Walden University

Masters of Social Work, 2006
University of Southern Mississippi

Bachelor of Social Work, 2005
University of Southern Mississippi

Professional Experience:

Social Work Case Manager, Cigna HealthSpring, Houston, TX (2012-present)

Social Worker, Kingwood Medical Center, Kingwood, TX (2011-2012)

-Conducted individual, group and family therapy/counseling
-Delivered presentation on Abuse Awareness to new employees
-Referred families to appropriate community, county, state, federal and hospital resources
-Collaborated with physicians and nurses regarding barriers or challenges families are confronting, and assist family with solutions
-Assisted members and families in long-term care planning where necessary.
-Developed working knowledge of resources readily available to interdisciplinary team and families.
-Provided education on community, local, Federal, and State resources
-Worked with Medical, NICU, Inpatient Rehab, and Surgical patients

District Genetics/ Children Medical Program Coordinator, Mississippi Department of Health, Gulfport, MS (2010-2011)

-Provided additional enhanced psychosocial intervention for Genetic/ CMP clients
-following up to assure referral appointments are kept and medical evaluation/treatment initiated
-Conducted psychosocial assessments
-Made referrals for additional resources as needed
-Conducted home visits to assure understanding of medical care, disease specific education, importance of compliance with follow-up, medication, thermometer use, and update CMP application
-Reviewed initial CMP applications for District

-Reviewed immunization records for all Genetic/CMP clients
-Provided Genetic/ CMP education to new employees, health professionals, and community
-Provided Newborn Screening education specimen collection/follow-up to hospitals/ county health departments
-Conducted program audits for all county health departments in district
-Monitored Monthly Newborn Screening Quality Assurance reports for all hospitals in district and addressing any discrepancies

Medical Social Worker, Texas Department of State Health Services, Arlington, TX (2007-2009)

-Provided advanced and comprehensive case management for families with children who have special health care needs
-Assisted families with the eligibility determination process for CSHCN-SP
-Completed Intakes, Family Needs Assessments, Service Plans, and Follow-up Services
-Linked families to community resources
-Participated in Community Resource Coordination Groups and case management coalitions
-Complete monthly reports
-Conducted presentations and in-services

Licensures and Certifications:

- Licensed Master of Social Work
- TX EC-4 Generalist Certification
- TX Special Education Certification
- Points of Light Youth Leadership Trainer Certification
- Child Care Worker Certification

Professional Skills:

- Grant writing
- Delivered in-services on recognizing and reporting child abuse/neglect
- Critical Incident Stress Management: Group Crisis Intervention
- Critical Incident Stress Management: Individual Crisis Intervention and Peer Support
- Presented at the 2006 National Youth Service-Learning Conference
- Experience in Microsoft Office, SPSS, Nvivo

Professional Organizations:

- American Public Health Association