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Church-Based HIV/AIDS Prevention for Adults

Hattie Acheampong
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Walden University

College of Social and Behavioral Sciences

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Hattie Acheampong

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Walden University
2014

Abstract

Church–Based HIV/AIDS Prevention for Adults

by

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M.P.A., Auburn University at Montgomery, 2003

B.S.N., Auburn University at Montgomery, 1995

B.G.S., Auburn University at Montgomery, 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Public Policy and Administration

Walden University

November, 2014

Abstract

Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) disproportionately affect African Americans in the South; given that population's high rate of church attendance, churches have been one potential avenue for HIV/AIDS education. Research has shown the importance of HIV/AIDS education in reducing risk behavior and infection, although church-based HIV/AIDS prevention programs for adults have received little scholarly attention, including the impact of such programs on attitudes, behavioral control, and intention to engage in safe sexual practices. Using Ajzens' theory of planned behavior as a foundation, the purpose of this quantitative study was to explore whether there is a statistically significant difference in attitudes, behavior control, and intention to engage in safe practices as a result of participation in a church program. Survey data were collected from a convenience sample of 132 adult participants, 68 of whom participated in a church-based HIV/AIDS prevention program, and a control group of 64 participants from a congregation without a program. Wilcoxon Ranks Tests were used to analyze the data. The results indicated a statistically significant difference between the experimental and control groups in regards to social norms and perceived behavioral control. There was no significant difference in the attitudes between the 2 groups. Implications for positive social change include informing policy makers and practitioners of the importance of church-based HIV/AIDS prevention programs as an innovative tool for adults to establish more effective HIV/AIDS prevention programs that will positively impact other ethnic groups at higher risk of acquiring the infection and disease.

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Dedication

To the loving memory of my late mother, Hattie S. Roy, who gave me unconditional love and devotion. She encouraged me to move forward with my dream of completing my Walden studies, and I am forever grateful for her love and support.

Acknowledgments

I would like to thank God for ordering my steps and placing me into Walden's Ph.D. Program for Public Policy and Administration in 2004. I would like to extend my heartfelt thanks to my dissertation chair, Dr. Christopher Jones, who showed an interest in my project and has been there to direct me even when I became frustrated and wanted to give up. Equally important, I am profoundly indebted to Dr. Karen Shafer and Jeff Zuckerman for their guidance and support, which has helped to make my dream a reality. Your careful attention to details made the end product of my paper remarkable. Throughout this process, my family and friends have given me encouragement and support. I extend a special thank you to my dearest friend Melody Tompkins for cheering me on.

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Chapter 1: Introduction to the Study

African Americans are diagnosed with the human immunodeficiency virus (HIV) at a rate higher than any other race or ethnic group in the United States of America (Centers for Disease Control and Prevention [CDC], 2011). Some of the behaviors associated with HIV makes it difficult to present programs to congregations. For example, the African American population has specific attitudes, beliefs, and cultural patterns that resist changes in behavior, particularly in the context of the traditionally conservative South (Oster et al., 2011). Although large proportions of the African American community are still church affiliated, the role of churches in addressing this issue needs further research. This quantitative cross-sectional study was designed to establish and compare the attitudes, subjective norms, perceived behavioral control, and intentions to engage in safe sex practices (condom use or dental dam use) among adults who have had exposure to a church-based HIV/AIDS prevention program and those who have not.

As African Americans continue to be disproportionately affected by HIV and acquired immune deficiency (AIDS), it has been argued that churches must not shy away from this epidemic (CDC, 2012; Nunn et al., 2012; Timmons, 2009). Valley Christian Church (pseudonym) is one Southern metropolitan church congregation that has confronted HIV/AIDS by adopting a HIV/AIDS awareness campaign (see Appendix F). Furthermore, church leaders have attempted to increase the quality and years of healthy life of this population by reducing HIV high-risk sexual behaviors, thereby reducing HIV incidence for African American adults as well as promoting effective public health

policies for HIV/AIDS prevention education.

In this chapter, I cover the background, statement of the problem, purpose of the study, significance of the study, nature of the study, research questions, conceptual framework, assumptions, scope and delimitations, limitations, definition of terms, and a summary.

Background

HIV and AIDS was recognized in the United States in 1981. Since that time, the epidemic has resulted in the loss of 659,000 lives in the United States (Kaiser Family Foundation, 2013) and 25 million deaths worldwide (U.S. Department of Health and Human Services, 2012). Somewhere near 35 million people across the planet currently live with AIDS (UN AIDS, 2013). According to Moss (2013), the number of AIDS cases increased rapidly from 1981 and declined substantially in 1995 due to the introduction of antiretroviral therapy. Adults in racial minority communities are extremely vulnerable to the transmission of HIV/AIDS (CDC, 2012; Wyatt, 2008).

According to the CDC, (as cited in the Morality and Mobility Weekly Report [MMWR], 2011), a high prevalence of HIV cases exists among African Americans disproportionately, two-and-a-half times the number of Whites (Gavan, Davis, Banks & Bing, 2008; Wang & Aspan, 2008). Similarly, according to the CDC (2011), African Americans accounted for an estimated 47% of all new HIV infections among adults and adolescents in 2011 but represented only 12% of the population. The diagnoses of HIV cases in 2012 among African Americans were seven times higher than Whites and other ethnic groups (Alabama Department of Public Health, 2012).

Despite widespread efforts to curtail HIV/AIDS in the United States, southern states such as Alabama, Florida, Georgia, Louisiana, North Carolina, South Carolina, and Tennessee have a disproportionately higher HIV/AIDS rate than any other U.S. region (MMWR, 2011; Wolfson, 2012). Wolfson (2012) argued that African Americans do not adequately practice HIV/AIDS prevention strategies for several reasons, such as poor social support systems, poor economic conditions, lack of education, decreased motivation, drug use, and social stigma.

According to the CDC (2012), local community churches can intervene and try to alter or improve an individual's perceptions, attitudes, and beliefs about the personal practices of HIV/AIDS prevention behavior. Wingood, Simpson-Robinson, Braxton, and Raiford (2011) described a culturally tailored, gender-specific, faith-based HIV intervention created to reduce African American women's vulnerability to the infection and disease. Wingood et al. (2011) found the women participants were willing to participate in the faith-based HIV intervention, which could halt the rate of HIV cases in the community.

The Alabama HIV/AIDS Surveillance, Public Health Report (2012) explained that the epidemic has grown rapidly in Alabama counties. Montgomery was one of the top five counties with the highest frequency of newly diagnosed HIV cases between 2009 and 2012 (see Table 1). The Alabama HIV/AIDS Surveillance Public Health Report (2012) indicated that the research study conducted among racial minority groups such as African American adults comprise one of the groups found to be exceptionally vulnerable to HIV/AIDS due to barriers associated with poverty, lack of access to adequate health

care, and lack of education. The Alabama HIV/AIDS Surveillance, Public Health Report (2012) research study was limited because it did not include stigma, discrimination and disparity as barriers to HIV/AIDS in this population. The study contributes to the gap in the literature because it emphasized the need for evidenced-based information to explore the impact of HIV/AIDS on the African-American adults' communities.

Table 1

Top Five Counties in Alabama With the Highest Frequency of Newly Diagnosed HIV Cases, 2009-2012

<u>County</u>	<u>2009</u>		<u>2010</u>		<u>2011</u>		<u>2012</u>	
	No. (%)	Rate	No.%	Rate	No.%	Rate	No.%	Rate
Jefferson	193 (27.8)	29.3	194 (28.0)	29.5	209 (29.6)	31.7	190 (28.7)	28.9
Madison	38 (5.5)	11.3	35 (5.1)	10.5	44 (6.2)	13.4	38 (5.8)	11.3
Mobile	193 (27.8)	26.6	92 (13.3)	22.3	95 (13.4)	22.3	86 (13.0)	20.8
Montgomery	84 (12.1)	36.6	76 (11.0)	33.1	80 (11.3)	34.9	69 (10.4)	30.0
Tuscaloosa	25 (3.6)	12.31	31 (4.5)	15.9	26 (3.9)	13.4	33 (5.0)	17.0

Note. From, "State of Alabama HIV Surveillance Annual Report Finalized 2012," by Alabama Department of Public Health, Division of HIV/AIDS Prevention and Control.

Given the strong historical and cultural connections between the African American community in the American South, particularly the Southern evangelical denominations, churches appear to be institutions well positioned to understand the HIV/AIDS problem in the broader community. For example, Berkley et al. (2010)

described a health intervention program called “TIPS: Taking it to the Pews,” funded by the Ministry AIDS Initiative, to reduce the number of HIV cases throughout Alabama. Bertly-Patton et al. (2013) also explained that churches equipped with easy-to-deliver HIV tools may be in a position to provide church appropriate screens, education, and support services to their congregations. Furthermore, the CDC (2012) claimed that local community churches are ideally situated to provide guidance and support to individuals by making appropriate education a routine part of their church ministry risk reduction and prevention program to combat HIV/AIDS stigma.

Researchers have considered various aspects of programs and strategies that may be relevant to the African American community including prevention programs strategies, teen AIDS church prevention programs, gender related concerns related to HIV/AIDS prevention strategies (Wechsberg et al., 2010), addressing HIV/AIDS from the pulpit (Francis & Liverpool, 2009), AIDS knowledge counseling and skills building courses program evaluation (Francis & Liverpool 2009), HIV/AIDS and substance abuse programs (Wechsberg et al., 2010), role playing as it relates to communication skills (Adimora, Schoenbach, & Floris-Moore, 2009), HIV transmission (Merson, O’Malley, Serwadda, & Apisuk 2010), and HIV/AIDS facts, abstinence, and condom use (Darbes, Crepaz, Lyles, Kennedy, & Rutherford, 2008).

Consequently, in this study I analyzed information about two similar Christian churches in a major southern city--one church with an HIV/AIDS prevention program and one without an HIV/AIDS prevention program. The study was needed to increase one’s knowledge that church leaders and program planners can develop specific church-

based HIV/AIDS prevention interventions suited for adults living in similar demographic areas. Involving adults in health prevention programs can be invaluable to the development and delivery of community, church-based HIV/AIDS prevention program strategies (Massey, 2010).

Statement of the Problem

HIV/AIDS continues to be a major public health problem among young and older adults (CDC, 2009), and there is a higher incidence of HIV/AIDS and higher mortality rate among African American adults compared to other groups (CDC, 2012). Research has suggested that contemporary sexual practices and mores are key to reducing HIV infection (Crepaz, 2009; Darbes et al., 2008; Finlayson et al., 2011; UNAIDS, 2013) and that risky behavior is central to the discussion of and solution to the skewed rate of infection in that community compared to the nation as a whole. To a significant extent, the higher incidence of HIV among African American adults related to sexual risk behavioral practices can be reduced through an increase in knowledge and perceptions about how to prevent the illness and disease. However, there are no evidence-based, church developed culturally sensitive HIV/AIDS prevention strategies for African American adults (Higgins, 2010). The results of this study helped fill the gap in the literature by possibly identifying future public health policies that could promote effective HIV interventions based on specific cultural and behavioral patterns observed among this particular population.

Purpose of the Study

The purpose of this quantitative cross-sectional study was to establish and compare attitude, subjective norm, perceived behavioral control, and intention (see definitions) relative to condom and dental dam usage, among adults within two church communities: one with an HIV prevention program and one without. The study was designed using the theory of planned behavior (TPB) conceptual framework, which infers that intention is the primary determinant of behavior and is particularly influenced by attitudes, subjective norms, and perceived behavioral control.

This study filled an existing gap in the research literature for this particular population because there is limited literature on HIV/AIDS prevention programs for church-attending adults in the South. The present study may also promote additional research concerning specific educational interventions targeting adult populations and other local church group communities. Exposure to the church-based HIV/AIDS prevention program for adults was the study's independent variable. The main dependent variables included the attitude toward behaviors, subjective norm, perceived behavioral control, and intention.

Research Questions and Hypotheses

Exposure to the church-based HIV/AIDS prevention program for adults was the study's independent variable. The dependent variables included the attitude toward behavior, subjective norm, perceived behavioral control, and intention. The covariates or control variables were church status, age, gender, marital status, ethnicity, education attainment, and household income. Based on a review of the literature, four hypotheses

guided the analysis of data. In addition, the following research questions (RQs) were addressed via the quantitative cross-sectional study.

1. To what extent does exposure to a church-based HIV/AIDS prevention program influence attitude, subjective norm, and perceived behavioral control of adult Christian church attendees in the South?
2. To what extent does exposure to a church-based HIV/AIDS prevention program influence intention to engage in safe sex practices (condom or dental dam use) of adult Christian church attendees in the South?

H_{01} : There is no statistically significant difference between attitude scores towards condom use or dental dam use for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A1} : There is a statistically significant difference between attitude scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{02} : There is no statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A2} : There is a statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{03} : There is no statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A3} : There is a statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{04} : There is no statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A4} : There is a statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Conceptual Framework of the Study

The study established and compared attitudes, subjective norms, perceived behavioral controls, intentions to engage in safe sex practices, and sociodemographics relative to sexual risk behaviors of adults who attended church services. The TPB, originally developed in the 1960s as the theory of reasoned action, predicts a person's intention to behave in a certain way. The model evolved from the field of social psychology and has been modified over the years. This systematic method was based on a sequence of events and has been used to predict whether an individual will seek

interventions to prevent HIV or not. For example, an individual's attitude is based on past experiences, whether positive or negative, as well as his or her beliefs and norms (Ajzen, 2011). The TPB has been used to explore why some people practice safe sex and others do not (Glanz & Viswanath, 2008; Mausbach, Semple, Shathdee, & Patterson, 2009; Montano & Kasprzyk, 2008).

The TPB was viewed as potentially useful in predicting the person's actions regarding health by focusing on the individuals' behavior, normative beliefs, attitudes, motivations to comply, subject norm, and the intention to perform the behavior (Ajzen, 2011). According to the TPB (see Figure 1), three considerations guide human action: (a) the individual's belief about the likely outcome of the behavior, (b) the individual's evaluation of the outcomes, and (c) the individuals' belief about what others normally expect, as well as the motivation to comply with those expectations (Ajzen, 2011).

Weiner (2010) posited that three principles guide one's behavior. For example, the person must be motivated to embrace the need to achieve certain concepts. In addition, the person has to have either pleasure or pain as an incentive to change the behavior or expect that the value (high or low expectancy of success) of the incentive is worth it to determine if the person will carry out the achievement. Weiner asserted that the less difficult the task, the more behavior consistently follows social norms; the more difficult the task, the less consistency there is with alignment of behavior and social norms. Figure 1 shows the schematic presentation of the theory of the planned behavior.

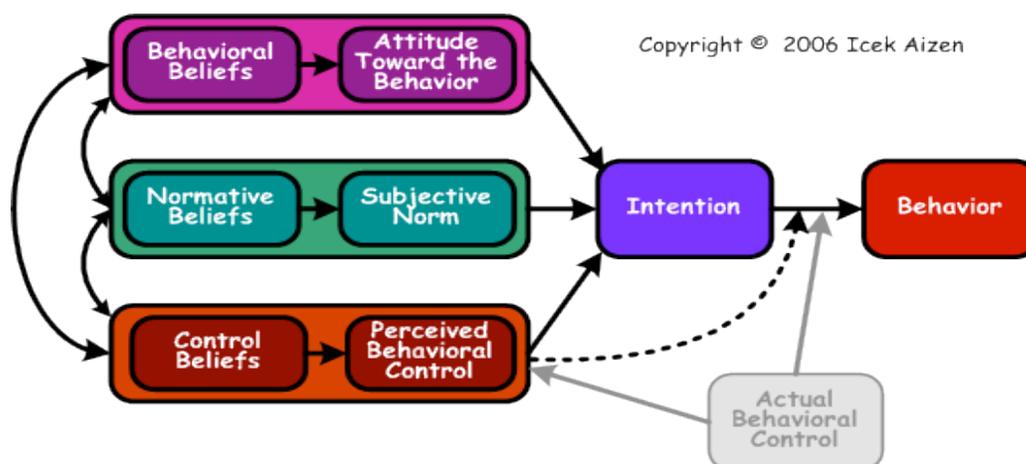


Figure 1. An example of the theory of planned behavior. Reprinted from www.people.umass.edu/aizen/tpb.html. Retrieved July 21, 2013. Copyright 2006 by I. Ajzen. Reprinted with permission.

Limitations of the Theory of Planned Behavior

The TPB was limited in measuring other factors such as culture, socioeconomic status, previous experiences, and environmental factors that may influence health behaviors. Therefore, African Americans experience the effects of barriers and other factors outside of their control, which can influence the likelihood of their seeking HIV/AIDS counseling, testing, early medical treatment, and healthy sexual practices. In addition, the TPB was limited in terms of predicting involuntary behavior.

Although an individual may strongly intend to carry out a specific behavior, the individual may not perform the act necessarily because of the opportunities, resources, or ability (Ajzen, 2011). The TPB has been long regarded as the universal model of behaviors of social relevance that are under the person's volitional control. This model is thus able to predict the most accurate behavior by measuring intentions, which is the immediate determination of behavior and perceived behavior control (Ajzen, 2011). A more detailed explanation will be provided in Chapter 2.

Nature of the Study

The research design was established and compared attitudes, subjective norms, perceived behavioral control, and intention, variables relative to adults within a comparable population of two Christian church groups. The TPB questionnaire developed by Ajzen in 1985 was adapted for this study. The modified TPB questionnaire (Appendix F) contained a variety of dependent variables to measure, such as attitudes, subjective norms, perceived behavior control, and intentions to use condoms or dental dams among adults. The independent variable was the exposure to a church-based HIV/AIDS prevention program. The covariates or control variables included sociodemographics, church status, age, gender, marital status, education attainment, and household income.

In addition, the quantitative cross-sectional study design was chosen over other designs based on its best fit to focus on individual experiences. This allowed me to investigate the problem and give credence to my ultimate findings. The quantitative cross-sectional study consisted of distributing the TPB questionnaire to participants to learn more about the attitudes, subjective norms, perceived behavior control, and intentions relative to safe sexual behaviors of adults. The TPB can help provide the structure for identification and measurement of the factors that affect sexual behavior.

Definitions

Abstinence: A health, religious, moral, or legal choice to refrain from sexual intercourse, which includes oral, vaginal, or anal sex (Rossi, 2009).

Acquired Immunodeficiency Syndrome (AIDS): Progressive failure of the immune system causes the infected person to die from either malignancies or opportunistic infections (CDC, 2009).

Attitudes: A consistently favorable or unfavorable response to a stimulus (Altmann, 2008).

Church-based HIV/AIDS prevention program training: A church ministry that provides training related to HIV/AIDS prevention to local community residents with special focus on healing, prevention, and empowerment (Godwin et al., 2012).

High risk sexual behavior: Individuals with an increased risk of acquiring HIV through sexual encounters, including men who in the past year have had sex with other men, men and women who have had sex with more than one partner, individuals who have knowingly had sex with an HIV infected person, or those who have exchanged sex for drugs or money (CDC, 2011).

Human Immunodeficiency Virus (HIV): A retrovirus that occurs after the transfer of body fluids from an infected person to an uninfected person and lead to AIDS (CDC, 2011).

Intention: A person's motivation to perform a specific behavior (Ajzen, 2011). An intention is based on attitude, subjective norm, and perceived behavioral control toward the behavior and usually precede behavior.

Perceived behavioral control: Refers to an individual's perception of his or her ability to perform a specific behavior (Ajzen, 2011).

Sexual risk behavior: A sexual practice that may increase the probability of contracting a disease, such as HIV/AIDS (CDC, 2012).

Sociodemographics: The sociodemographics profile of the studied population consists of church status, age, gender, ethnicity, marital status, education attainment, and household income.

Stigma: A discrediting judgment that is expected by an individual or group to exclude interactions from others in society (Bos, Pryer, Reeder, & Stutterheim, in press).

Subjective norm: According to Ajzen (2011), it is the perceived social pressure to engage or not engage in a behavior.

The Balm in Gilead: A not-for-profit, nongovernmental organization located in New York City. It is the only organization in the United States that is dedicated to empowering churches in the struggle against HIV/AIDS in African American communities (Harris, 2010).

Theory of planned behavior (TPB): A conceptual framework for understanding predicting intentions and behavior (Ajzen 2011).

Assumptions

Adult church members were assumed to be willing to participate in the study and give honest responses to the (TPB) high-risk sexual behavior survey. It was further assumed that adults who represented a diverse cross-section of church-going Christians would trust me as the researcher and openly and truthfully indicate their attitudes about HIV/AIDS, subjective norms, perceived behavioral controls, and sexual risk behaviors.

Another assumption was the church-based HIV/AIDS prevention program was one of the primary sources of information on the topic for the participants in the study.

Scope and Delimitations

This study employed quantitative study measurements and assessments to establish and compare the outcomes related to the participants' attitudes, subjective norms, perceived behavioral controls, intentions, and sociodemographic variables relative to sexual risk behaviors of a church-based HIV/AIDS prevention program experimental group to a control church group. This study was delimited to adults who (a) attended a Christian church in the South, (b) identified themselves as being 18 years old or older, and (c) able to read and write in English.

This specific focus was chosen to establish and compare the attitudes, subjective norms, perceived behavioral controls, intentions and sociodemographics relative to sexual risk behaviors among adults, which predisposes them to HIV/AIDS. Single group threats to internal validity were ruled out in this study because the second group was a control group and was comparable to the program group. The study took place at two different churches with different people and at different times. The external validity (ability to generalize) may not be strong because the study employed a nonrandom sample.

Limitations

The study was limited to adult members of two churches in one mainline Christian denomination. A second limitation was that the data were not collected on the participants' attitudes, subjective norms, perceived behavioral control, intentions, and

sexual behaviors of adolescents. Self-reporting was another limitation to this study because there may have been some participants who underreported actual experiences. In addition, all participants were informed that all data would be kept completely confidential. Consequently, this study did not include adults in other HIV/AIDS prevention programs.

Researcher Bias

I am an adult in the age group of those being studied, who attends a local church, and has experience with the challenges of being at risk of acquiring HIV/AIDS. To the best of my ability, I did not allow my opinions to effect the administration or outcome of the research. The use of a quantitative research instrument also helped insulate the study's data collection from my personal biases.

Significance of the Study

The present study provided new data on the current attitudes, subjective norms, and perceived behavioral control and intentions about the sexual risk practices among a specific population of church-going adults in the South. The results of this study serve to identify future public health policies that can promote effective HIV prevention offered at community churches, provided practitioners, and professional peers with important feedback about short and long-term performance. More specifically, existing data about HIV point to a considerable risk of infection among all sectors of the adult population. The conclusions arising from this study served to address behaviors conducive to HIV that are believed to be generalizable to the adults in Southern states.

In addition, the study addressed the barriers and obstacles to developing and implementing appropriate and culturally sensitive HIV prevention strategies within this population. The study was significant because its results argued for supporting and promoting health education, early detection, and testing for HIV/AIDS.

Summary

In Chapter 1, I addressed the problem facing the adult community in the South with respect to high infection rates and severity of the effects of HIV/AIDS. This study was established and compared exposure to a church-based HIV/AIDS prevention program and one without relative to attitudes, subjective norms, perceived behavioral control, and intentions among adults. The conceptual framework was the TPB, and a questionnaire was proposed and adapted from the work of Ajzen (2011). In this chapter, I discussed assumptions, limitations, and the potential biases of the researcher. In the following chapter, I will explore the existent literature on HIV/AIDS with respect to its effects on the adult community in the South, and more specifically, the research to date on prevention, education, and treatment within that church community.

Chapter 2: Literature Review

Introduction

The research problem is that there are higher incidences of HIV/AIDS among African American adults compared to other groups. In addition, there is an increased risk of diagnosis with advanced stage HIV/AIDS and a higher mortality rate among African American adults who are diagnosed with HIV/AIDS. Finally, there are no evidence-based, culturally sensitive, and appropriate HIV/AIDS prevention strategies for African American adults. Therefore, the basic purpose of this quantitative cross-sectional study was to establish and compare attitudes, subjective norms, perceived behavioral control, intentions and sociodemographics relative to sexual risk behaviors of adults within two local Christian church communities: one with a program and one without.

In the literature review, I describe the attitudes, subjective norms, perceived behavioral control, intention and sociodemographics relative to church-based HIV/AIDS prevention education as an alternative to other means of reaching targeted populations at high-risk of acquiring and transmitting HIV. Numerous studies have suggested African American adults are disproportionately infected and affected by the HIV/AIDS pandemic and have higher rates of infections than other races (Alabama Public Health Report, 2012; CDC, 2012; El-Bassel, Caldeira, Ruglass, & Gilbert, 2010; Harris, 2010; Henny et al., 2012; Hosek, Brothers, & Lemos, 2012; Kennedy, 2011; O'Brien, Bayoumi, Davis, Young & Strike, 2009; Radcliffe et al., 2010).

More than 750 studies were identified in August 2013 via Walden University's Thoreau multiple databases, Medline, PsycINFO, and Google Scholar computer searches

using key words such as *knowledge, attitude to AIDS, condom and HIV, stigma and HIV, church-based HIV/AIDS prevention, HIV risks, behavioral risk factors related to community church outreach and education programs, church-based health programs, HIV interventions, church and HIV knowledge, HIV prevention programs, and HIV infections*; however, only specific research studies that are relevant to this study were included in the dissertation. The search also included published and peer-reviewed articles that contained questionnaires related to attitudes, perceived behavioral control, and intentions to engage in safe sex practices (condom or dental dam use) about sexual risk behaviors relative to African American adults.

In addition, published and peer-reviewed articles were reviewed that related to the factors that may influence safe sex practices and church engagement in providing insight about HIV/AIDS prevention. The published and peer-reviewed articles reference lists were examined for additional relevant articles that were not found in prior searches. The literature search began in March 2006, was repeated in April 2007, and once more in August 2013 to identify new articles.

Organization of the Literature Review

In this chapter, I first describe the TPB theoretical foundation as it relates to HIV and the African American population. I examined quantitative and qualitative studies that showed the extensive use of the TPB questionnaire for other different behaviors. The chapter reveals the literature that described the use of TPB constructs to study behavior among adults. In addition, the literature was searched for articles describing validated instruments for use in research to identify knowledge deficits and evaluate risk reduction

strategies and treatment programs. Other articles furnished guidelines useful in developing an instrument to test TPB constructs. Ajzen (2011) provided the platform for the survey in the areas of attitude, subjective norm, perceived behavioral control, intention and sociodemographics relative to exposure to a church-based HIV/AIDS prevention program.

Theoretical Foundation

The strategy of this research was to use the TPB (Ajzen, 2011) to establish and compare the constructs of attitudes, subjective norms, perceived behavioral controls, and intentions to engage in condom use or dental dam use relative to sexual risk behavior among adults who were exposed to a church-based HIV/AIDS prevention program and those were not. In addition, the TPB has been used to determine the relationship between young adults aged 15 to 24 years old and their attitudes about intentions to use condoms (Hallub, Reese, Herbenick, Hensel, & Middlestadt, 2011). Similarly, Rhodes, Al-oballi, and Penprose (2011) described the use of the TPB in understanding overweight adolescents' beliefs. The TPB has been frequently used to understand employees' hiring intentions in regard to qualified workers with disabilities (Fraser, Ajzen, Johnson, Hebert, & Chan, 2011) and to understand binge drinking of college students (French & Cooke, 2012).

Ajzen (2011) explained that normative beliefs are the expectations of others and the motivation to comply with those expectations. Additionally, Ajzen argued that when an individual is ready to perform a specific behavior, he or she will first show a sign of intention to engage in the behavior. The behavioral beliefs include the individual's beliefs

and the outcomes, such as any unprotected vaginal or anal sex or unknown HIV infection status.

Other theories were considered for use in the study such as the AIDS risk reduction model (ARRM), the health belief model (HBM), and the stages of change model. The ARRM was introduced in 1990 and incorporates variables from HBM, diffusion of innovation model, and social cognitive theory to explain the behavior change of individuals who are diagnosed with HIV/AIDS (Durojauye, 2011). HBM is one of the conceptual frameworks that has been used for many years to explain health behavior (Sharma, 2011). This theory was developed to understand the lack of the individual's participation in health screening and prevention programs. The specific variables used in this theory include perceived threat, perceived benefits, perceived barriers, and cues to action as well as self-efficacy.

The stage of change model was developed by Prochaska and DiClemente in the 1990s to address smoking cessation (Okpaku, MacMaster, Dennie, & Tolliver, 2008). This theory uses six stages of change from major theories to describe what an individual must overcome in an effort to change a specific behavior such as precontemplation, contemplation, preparation, action, maintenance, and relapse (Okpaku et al., 2008).

All the theories discussed above have specific limitations. For example, the HBM model does not include the influence of social norms and peer influence on an individual's decisions regarding health behaviors. ARRM does not consider sociocultural issues that influence an individual's actions. The stages of change model does not take into account environmental or structural problems related to effects of particular

behaviors. In comparison, the TPB model can help individuals to identify and measure factors that affect sexual risk behaviors such as attitudes that put one at risk of acquiring HIV.

Attitude

According to Ajzen (2011), a behavioral belief occurs when the individual's belief is associated with a particular behavior that has positive or negative consequences. Therefore, the behavior will be dependent on the individual's accessible behavioral beliefs (Ajzen, 2011). Boileau, Rashed, Selim, Sylla, and Zunzune (2008) sought to validate an instrument to monitor HIV risk and interventions of urban West African youths. In the study, a HIV/AIDS behavioral surveillance instrument was developed. The validation sample ($N=342$) and the exploratory sample ($n=189$) of men and women were interviewed face-to-face. Attitudes and perception of behavioral control was associated with gender, sexual experience, and education. In addition, condom use was significantly predicted from attitudes, perceived behavioral norms, and communication with peers. The study concluded that the questionnaire was valid and reliable, which makes it a valuable tool to assess youth's sexual risk behavior in an urban setting in West Africa.

Wang (2009) argued that more detailed theoretical explanation and more precise guidance relative to prediction of behavior can be found when the TPB integrates attitude functions. Undergraduate students ($N=549$) were sampled to determine if individual intentions to participate in physical activity on a regular basis was predicted based on the individual's self-esteem maintenance attitudes. The effects of this phenomenon were moderated via the individual's self-esteem and self-monitoring strength. The study

concluded that campaign planners could use more detailed attitude constructs to design campaign messages to specific populations.

Subjective Norm

Mirkuzie, Sisay, Moland, and Astrom (2011) conducted a study in Addis Ababa to explain HIV testing in an antenatal setting by applying the TPB questionnaire. The HIV counseling and testing were offered routinely to prevent mother-to-child transmission of HIV. The study used a sequential exploratory mixed methods approach. The sample included ($N = 3,033$) women who completed the TPB questionnaire while 2,928 participants completed the follow up of actual HIV testing. The data were analyzed using descriptive statistics, such as chi-square tests, linear regression, and Pearson correlation. Subjective norm indicated that there was substantial amount of variance in intentions and attitudes. The TPB explanation power was found to be low due to the large proportion of participants who intended to get tested for HIV. The study concluded that social approval can provide positive consequences for women and should be told upfront that they can choose to opt out to improve prevention of mother-to-child transmission services.

In another study, Abamecka, Godesso, and Girma (2013) conducted cross-sectional quantitative institutional research among a sample of 336 health professionals from selected districts of Jimma, Ethiopia, in 2012. The TPB was self-administered, and the constructs were measured to predict the role of the independent variables. A multivariable linear regression model was used and data were entered into the SPSS version 16.0 for analysis. The study determined that the strongest predictors of intention

to volunteer HIV counseling and testing (VCT) were subjective norm ($\beta=0.39, p <0.001$) and attitude ($\beta= 0.19, p <0.001$) while the sociodemographic variables did not reveal significant prediction of the intention to use VCT.

Participants who had experiences past VCT did not have significant statistical association with intention. The study concluded that a function of attitude and perceived behavioral control was based on the intention to perform the behavior. This study sought to empower health professionals to change negative attitudes about VCT, and determined that demographic related social determinants were not barriers to use of VCT.

Furthermore, Miner, Peterson, Welles, Jacoby, and Rosser (2009) examined the association between social norms and unsafe sexual practices. The sample consisted of 675 HIV infected men who had sex with men and were enrolled in a community-based organization HIV risk behavior program. The study mentioned that the theory of reasoned action (TRA) describes use of a condom as being dependent upon one's intentions to use it. Baseline data were collected via self-reports between January 2005 and April 2006. The participants were recruited from Boston ($n = 64$), Houston, ($n = 103$), New York ($n = 177$), Seattle ($n = 114$), and Washington, DC ($n = 71$). Participants were included in the study if they spoke English, were HIV positive, were at least 18 years old, had anal sex without a condom in the past 12 months, and had sex with at least one man in their lifetime. African American participants comprised 45% of the sample, Whites were 23%, and Latino/Hispanics along with Asian/Pacific Islanders as well as mixed races were only 7%.

The study was limited because the participants were from a convenience sample versus a random sample of HIV-positive men. The data were collected via self-report, which indicated that the sexual behavior information collected were over a 3-month period, retrospectively. The study concluded that the TPB increases understanding about safe sex and their belief that they can control the specific behavior.

Perceived Behavioral Control

Ajzen (2011) argued that perceived behavioral control occurs when a people perceive they can perform a specific behavior. Perceived behavioral control is determined by beliefs about the presence of influences that may help the individual achieve or avoid the performance of a specific behavior. More specifically, perceived behavioral control can be used along with intention to predict a particular behavior.

Kiene, Tennen, and Armeli (2008) attempted to explain the variability in condom use attitudes, self-efficacy and behavioral intentions that can vary day-to-day. The sample included ($N = 116$) sexually-active college students, during a 3-week period of 1 semester, who reported their current feelings of negative effect as it related to their condom use attitudes, self-efficacy, and behavioral intentions and sexual behaviors for day-to-day changes for the previous 30 days using a web-based structured daily diary in order to design effective interventions that would lead to increase condom use.

Of the 116 participants, 49 were male and 67 were female undergraduates with an average age of 19.15 ($SD = 1.51$). A majority of the participants (88.9%) described themselves as White/European-American, 5.1% as Black or African American, 3.4% as Asian American, 1% as Latino or Hispanic, and 1.7% as another ethnicity. All of the

participants described themselves as either not being married, but in a dating relationship. A *z*-test ($p < .001$ for all tests) was used to evaluate within-person variance for all of the social cognitive variables and was found to be statistically significant. The percentage of total variability that was within-persons for attitudes was 13.85%. Behavioral intentions were 14.65% and 13.78% for self-efficacy. Gender for daily condom use, the moderator variable, did not moderate the effect of daily attitudes or the effect of daily behavioral intentions (Kiene et al., 2008).

In the context of gender differences, women's condom use was less likely with casual partners than with steady partners, but for the men, the condom use was less likely with steady partners. Failure to use condoms was associated with attitudes, self-efficacy (perceived behavioral control), and behavioral intentions on a day-to-day basis. The study concluded that individuals who tended to have stronger behavioral intentions than those who tended to have weaker behavioral intentions increased the likelihood of condom use. Although the study was limited by not including a partner's influence in condom use decision-making, it provided a clearer understanding of the predictors of condom use (Kiene et al., 2008).

Carmack and Lewis-Moss (2009) conducted a cross-sectional TPB study to examine behavioral intention condoms. The study included 462 African American adolescents' ages 12 to 17 recruited from a Midwestern U.S. city and its surrounding areas about their attitudes, norms, perceived control, and intention regarding condom use. Fifty-six percent ($n = 250$) of the participants were female. Forty-seven percent ($n = 217$) of the participants were in the ninth grade. Twenty-eight percent ($n = 129$) were in the 10th

grade, and 25% ($n = 116$) were in the 11th or 12th grade. The study used the TPB with this population to assess whether these adolescents intended to engage in protected sexual relations (condom use) in the following year. This may have important implications in dealing with adolescent sexual behavior, such as increasing intentions to use condoms.

Perceived behavioral control was found to have the ultimate influence on intention with regard to sexual behaviors and African American adolescents. The study found that the effect-indicator model showed a control increased, self-efficacy increased (standardized $\gamma = .900$, $p < .001$), but perceived controllability decreased (standardized $\gamma = -.333$, $p < .001$). The results suggested that an African American adolescent's self-reported control coincides with his or her perception of decreased availability of condoms but would increase depending upon the situation such as a specific ability to use a condom with a particular partner (Carmack & Lewis-Moss, 2009).

The study was beneficial because it showed that increasing self-efficacy in African American adolescents could lead to the development of interventions that focus on the situation-specific abilities of African American adolescents to negotiate condom use. Negotiating condom use with a partner can have a greater influence in the person's intentions to use condoms during sex, thus influencing actual condom use. The study was limited because it did not address indications of past condom use behavior for adults, which would add to the theoretical power of the TPB in terms of influencing intention.

HIV/AIDS Education and Awareness in African American Churches

Church-based HIV/AIDS education to increase awareness about the infection and disease is important to open discussion about risk reduction behavior. Ellison, Musick,

and Henderson (2008) found that although African Americans experience below average socioeconomic status, their connection to church traditions increases psychological well-being. There is mounting evidence that HIV/AIDS has taken a measurable toll on the health and well-being of African American adults and other racial/ethnic minorities and churches are getting involved in the fight against the disease (CDC, 2012; Nunn et al., 2012).

According to Wingood et al. (2011), community church leaders are being educated about how best to integrate HIV/AIDS prevention messages in their sermons and prayers as well as incorporate effective HIV/AIDS prevention programs. The HIV/AIDS epidemic has grown rapidly as research studies conducted among racial minority groups indicated that African American adults comprise one of the groups found to be exceptionally vulnerable to HIV/AIDS due to barriers associated with poverty, lack of adequate health care, and lack of education (Arya, Behforov, & Viswanath, 2009; Timmons, 2009).

Timmons (2009) explored factors related to implementing research-based health programs in church settings in South Carolina with pastors from 11 Christian churches. Of the 11 churches, seven pastors participated in Group 1 and four in Group 2. The qualitative methodology used to address the research questions were focus groups and semistructured interviews. Timmons used a constant comparative method to analyze the coded transcripts and categorized data themes. Findings suggested program planners need guidance in designing effective community level measures to disseminate information that assists in increasing awareness of particular relevance to HIV prevention. The study

was limited in scope because it did not include other church denominations, which made the results generalizable only to the Christian church community. The study provides insight into what religious leaders know about HIV/AIDS, and adds to the literature gap of knowledge about developing appropriate church-based HIV/AIDS prevention messages.

In addition, Timmons (2009) suggested that when research is conducted in partnership with African American churches to implement research-based health programs, the congregant needs, pastors, and researchers have a common understanding of the particular study, the specific shared program ethics can play an essential role in generating successful outcomes. Although this research was generalizable only to the sampled population, it adds to the body of knowledge that programs designers can use to create and implement HIV/AIDS prevention strategies that could be suited for African American adults to increase their quality and years of life. Additional research regarding the factors related to implementing research-based health programs in church settings could strengthen these research findings.

Nunn et al. (2012) conducted research on HIV prevention in 38 faith-based institutions in Philadelphia. The study was chosen to highlight the perceived barriers and recommendations to encourage African American faith leaders to engage in HIV/AIDS prevention education and training. African American pastors participated in five focus group discussions about the challenges in addressing HIV/AIDS, and the factors that contribute to the epidemic. Some of the faith leaders were concerned about the fear of

losing parishioners, not having appropriate educational information, in terms of discussing HIV/AIDS and human sexuality from the pulpit.

The findings suggested that HIV/AIDS prevention developed by CDC may not fit the church-based setting and should build collaborative partnerships between public health and faith-based institutions that promote abstinence and delayed sexuality activity. The study was limited by the fact that half of the sampled population was based upon the churches that had an existing relationship with the Major's Office of Faith Based Initiatives investigator, which did not represent the African American National faith-based community. The CDC (2012) studied Alabama churches that work to promote HIV/AIDS prevention education.

According to CDC (2012) pastors at 11 African American Christian churches provided prevention education to their congregations to combat HIV/AIDS stigma. The intervention program was entitled "TIPS: Taking it to the Pews." The Alabama Council on Substance Abuse operates TIPS in Alabama. In addition, CDC (2012) estimated that many African-American adults living in Alabama do not know their HIV status. CDC further reported that during 2012, African Americans comprised 26% of Alabama's population while 68% were newly diagnosed with HIV infection. CDC estimated that the newly diagnosed HIV infections occurred with adults 25 to 44 years old (46%). Thirty percent of the HIV infections occurred with individuals that were between 15 and 24 years old.

Overall, the majority of adults who were living with HIV were between 45 and 64 years old (CDC, 2012). Montgomery County was one of the five ranked with the highest

rate of HIV infection each year between 2008 and 2012. This study suggested that African American pastors are educating their congregations about HIV/AIDS prevention. In addition, the study showed there were positive outcomes such as many of the congregants getting tested for HIV. The study added to the gap in the literature about HIV/AIDS prevention education for African American adults at greater risk of acquiring the disease and determining that knowing one's HIV status is extremely important in reducing the HIV/AIDS cases in the South.

Manley et al. (2011) conducted qualitative research via face-to-face interviews with a final sample of 1,142 HIV infected women and 511 HIV uninfected women to determine if cognitive impairment effects brain function in HIV positive females. Manley et al. found that ethnic groups are often misdiagnosed due to cognitive impairments. The relationship of demographic factors was also examined from both HIV and non-HIV infected women. The findings showed there was a relationship between ethnicity, age, education, and reading level speed as well as executive functioning among HIV positive and HIV negative African-American women.

African Americans and Lack of Personal-Centered Mission

Although African Americans view the church as a gatekeeper of support in their community and churches are recognizing their role as essential players in the fight against HIV/AIDS, one factor that is important is the congregants' dialogue about their experiences (Timmons, 2009). In contrast, Lindley, Gaddist, and White (2010) conducted a cross-sectional research study in South Carolina during 2007, with 1,445 congregants, 61 pastors, and 109 care team members.

Lindley et al. found that the congregants were not knowledgeable about HIV/AIDS transmission by casual contact. For example, HIV is not transmitted by day-to-day contact in a social setting, the workplace, or schools nor is HIV transmitted through casual kissing, shaking hands, or hugging. One cannot become infected with HIV from food, dishes, drinking glasses, a drinking fountain, door knob, from a toilet seat, or pets with HIV (Lindley et al. 2007). In addition, older adults 65 years old or greater were less knowledgeable about HIV/AIDS transmission and significant high levels of HIV-related stigma than younger adults. The authors concluded that churches should reinforce education about the ways that HIV can be transmitted by adult males and older people. The limitations of the study included a lack of discussion about HIV transmission by females and strategies to reduce stigma. The findings are supportive of HIV prevention efforts targeting church-based HIV/AIDS prevention for adults.

Behaviors Associated With HIV/AIDS Status

Several modes of exposure place African American adults at risk of contracting HIV. For example, Noor, Ross, Lai, Dejian and Risser (2013) used a collaborative driven effort of a nonrandom sample selection of their peers. Eligibility criteria consisted of participants being 18 years of age and older who lived in the city of Houston, TX, or Harris County and injected drugs within the most recent 12 months. CDC (as cited in Noor et al., 2013) estimated that both unsafe risky behavior and drug-using practices makes risk of HIV transmission higher. Approximately 20% of the 1.2 million people living with HIV do not receive treatment, participate in intervention strategies, or know their HIV/AIDS status Noor et al. (2013). The authors concluded the CDC should

implement HIV screening, which may not be enough to change the person's sexual behavior from unprotected to protective preventions.

In addition to the risks mentioned, men who have sex with men and women continue to challenge health educators and counselors in regards to engaging this group in open discussions about HIV risks. Saleh, Operario, Smith, Arnold, and Kegeles (2011) conducted qualitative research in Northern California with 21 participants who were African American adults. The study consisted of focus group discussions about HIV risks and perceptions of HIV prevention services as well as the challenges and experiences of African Americans.

Saleh et al. (2011) posited that in order to maximize privacy and honesty, participants should be given choices about male or female counselors or educators. In addition, HIV prevention services should be provided individualized feedback to participants versus group discussions. The findings suggested that Black men health programs may be a subtle approach to collaborate with social networks and encourage church leaders and other community members to get involved in the fight against HIV/AIDS.

Logan et al. (2013) conducted a community-based cross-sectional pilot study of young homeless adults in the Portland, Oregon, metropolitan area in 2010. Participants were between the ages of 18 and 25 years old. Many of the young people identified as bisexual, gay, lesbian or transgender. Homeless communities require several types of health care due to high levels of substance abuse, and exchange of sex for drugs, money or housing. Over 50% of the participants reported discussing risks of HIV infection and

STI in personal relationships prior to sexual encounters. The study has at least one limitation, such as the results may not be generalisable to other homeless youth that did not receive risk behavior awareness training services. The study is significant because it adds to the literature about HIV educational forums providing preventive messages designed specifically for African American adults.

African American Identity and HIV/AIDS

Researchers studying the effects of HIV/AIDS on African American communities have argued that knowledge of behaviors and transmission associated with the spread of HIV has been linked with close romantic relationships, and individuals relying on perceived safety, primarily because they believe that they are in a monogamous relationship, and can trust their partners (El-Bassel et al., 2009). El-Bassel et al. (2009) posited that the HIV epidemic is driven by risk factors such as African Americans unique experiences, cultural values, attitudes, beliefs, poverty, lack of HIV education, gender inequality, substance abuse, and social norms. El-Bassel et al. (2009) posited that African American women empowerment strategies to challenge gender inequalities in regular and casual relationships can incorporate specific messages to increase the person's comfort level when negotiating condom use may help to reduce risky sexual behaviors.

Drayton and Prins (2011) defined identity as a person's characteristics that indicate values, social norms, and beliefs of individuals from a social group. Identities are framed by experiences from one's past and present, which change the person's aspirations of how they interact with others. Drayton and Prins found that African American identities are determined by environment social and cultural theories as well as

the person's experiences. For example, negative identities are framed when people view themselves as lazy, poorly motivated or less intelligent than other ethnic groups. On the other hand, positive identities refer to one's confidence in an ability to reach desired goals.

Scottham and Smalls (2009) explored the extent to which attitudes and beliefs are frequently emphasized through messages regarding specific behaviors. For example, caregivers may communicate positive or negative messages to family members about feelings of racial pride or racial barriers toward the African American group. A 3-year longitudinal study was conducted to examine racial identity as it relates to African-American female caregivers socialization with family members. Participants in the study were 208 African American female caregivers whose children attended middle and high schools in the Michigan Southeastern school district. The study was limited because adolescent perspectives were not considered and the research was not generalizable to male caregivers. The study was significant because it added to the literature about African-American identities and change in behaviors.

Moreover, Baumgartner and Niemi (2013) posited that people have other identities. According to Baumgartner and Niemi, sexuality and relationships are affected after a diagnosis of HIV/AIDS. On occasions, people are stigmatized by negative social identities, which involve work or spiritual identity. Culturally sensitive education can remove fear associated with how the disease is acquired for people living in poor neighborhoods.

By contrast, Higgins, Hoffman, and Dworkin, (2010) suggested men in relationships use sexual power over African American women and are not agents of HIV prevention. Despite the fact that some heterosexual men do not like condoms, lack of safe sex practices makes women vulnerable to HIV/AIDS. In the context of this study, Higgins et al., explored whether interventions specific to the uniqueness of African Americans should include individualized assessment of possible stressors such as childhood sexual abuse, and substance abuse. The authors concluded that couple-based HIV prevention interventions such as attending training sessions together may increase communication and express a desire to protect each other.

As the HIV epidemic continues to grow extensive cultural dialogue has increased awareness about HIV (Kern & Foreman, 2013). Kern and Foreman (2013) posited that essentially, African American male and female relationships are aggravated by an imbalance of power between the sexes. The data obtained in this study revealed that AIDS education prevention strategies to assist African American women in developing safer sex behaviors against the spread of HIV may not be particularly cultural and gender specific.

Equally important, Chajarich and Kow (2010) argued that gender is significant among women and men. For example, both male and female behaviors affect one another; their changing gender inequalities may highlight issues that men endure. Education is needed to reduce HIV infection; however it should be gender neutral. The research study is significant because it adds to the literature about how gender affects the HIV infection epidemic.

In contrast to Chajarich and Kow (2010), O’Byrne (2012) argued that HIV testing is important in preventing HIV infection. Consequently, HIV prevention methods should include individuals most affected by the infection. It is alarming to learn that 25% of Americans do not know their HIV status, but may be living with HIV (O’Byrne, 2012). To the context of the 54-70 % new cases of HIV in the United States, it is suspected that these are the people who are unaware of their HIV status. When a person receives a HIV negative test result, it may confirm that either the person is in a monogamous relationship or believe they are immune to the communicable disease (O’Byrne, 2012).

Furthermore, Holloway et al. (2012) argued that 35 to 50 House and Ball communities in Los Angeles consisted of African Americans and Latino young adults who did not live together, but attend social activities together such as dances and athletic events. A mixed method study was conducted. Participants were concerned with HIV prevention, but requested a more holistic approach such as job training, substance use and harm reduction approaches as well as house placements. Participants at the House and Ball events did not accept the HIV prevention messages. The majority of the community had been tested for HIV and sexually transmitted infection (STI).

The study was limited in the context of data collection from participants who lived outside of the House and Ball community, which made the data not representative of all members of the House and Ball community. The self reports may have yielded under- or over-reporting, which introduced bias. This study was significant because it increases one’s understanding of barriers to HIV testing in the House and Ball community (Holloway et al. 2012).

According to Wang and Arpan (2008), radio, television and magazines are currently providing HIV prevention messages to the African American communities. Ethnic identity characteristic are predictors of responses to HIV prevention messages. The study found that expertise interventionists were more effective than non-expert interventionists in facilitating behavioral changes in the same race and gender roles. The study is significant because it provides insight into HIV prevention messages and campaigns, in terms of racial and ethnic spoke persons for African Americans.

By contrast, Bond et al. (2009) posited that African American men who have sex with men and women (*men on the down-low*) are highly associated with HIV risk behaviors. The study found that *men on the down-low* reported they identified as being homosexual or bisexual rather than heterosexual. The study results were limited in terms of not being representative of African American men who have sex with men (MSM).

Equally important, Lopaz, Antoni, Fekete and Peneds (2012) conducted a cross-sectional research study from 1998 through 2004 to examine biological and psychological variables of women living with HIV. African American women between the ages of 25 and 34 from low socio-economic status may have stressors that negatively influence their health and well-being. However, a strong ethnic identity may provide a person with a better overall quality of life by reducing depressive episodes as well as provide a feeling of less perceived discrimination.

Although African American women living with HIV, with greater coping skills have limited access to social support networks, comparatively, African American men reported a perception of less race-related stress because of strong ties to their ethnic

identity (Lopez, Antoni, Fekete, & Peneds, 2012). The sample size for the study included 92 African American women who were HIV positive. The study is significant because it suggested that African American women with chronic medical conditions such as HIV can access tailored cultural environmental resources to increase quality of life.

In like manner, Mackenzie et al. (2012) conducted in-depth post-intervention interviews in Baltimore, Miami, New York, and San Francisco during 2005 with 68 HIV-positive injection drug users. Peer-based interventions provided health-promoting messages to reduce injection drug use practices and increase condom use during sexual encounters. HIV prevention education provided by one's own peers may be perceived as trustworthy and knowledgeable about ways to end the spread of HIV.

In the social context of HIV prevention, peer mentoring affected a person's social identity and acceptance of HIV status. In addition, peer mentors provided a supportive environment for individuals to communicate disclosure of HIV status and implement positive social change. The findings in the study is significant because it supports the need to find ways to curb the spread of HIV on an individual and peer level among African-American adult communities (Mackenzie et al., 2012).

By contrast, Sengupta, Banks, Jonas, Miles and Smith (2011) examined the extent to which HIV/AIDS stigma exists in situations in which individuals have received HIV-related interventions. The study consisted of reviewing 19 studies related to HIV interventions to reduce stigma. The finding in the study suggested that there are gaps in the literature related to evidenced-based interventions designed to reduce HIV/AIDS

stigma. Of the 19 studies only two were recommended for replication because of being deemed of higher quality.

Liu, Canada, Shi and Corrigan (2012) conducted a mixed-method research study across cultures with participants from Chicago, Beijing, and Hong Kong regarding employers' attitudes toward hiring individuals with HIV. The study examined employment stigma from several cultures. The findings in the study showed that employers perceived HIV transmission from hiring HIV positive individuals as not being competent to re-enter the job market. The study is significant because it contributed to the literature regarding interventions tailored at reducing stigma related to hiring practices.

Radcliffe et al. (2010) posited that HIV positive men who have sex with men experience multiple forms of stigma, such as sexual minority stigma, which includes social avoidance. Individuals who experience shame over their HIV/AIDS status are at higher risk of engaging in unprotected sex. Radcliffe et al. (2010) conducted a study with 40 African-American men between the ages of 16-24 years old who attended an outpatient HIV clinic. The study had at least one limitation: the findings were not generalizable to all African American young adults. However, HIV stigma interventions that target young adults' feelings are essential in HIV prevention.

Additionally, Gavin, Davis, Banks and Bing (2008) conducted a cross-sectional research study with a convenience sample of 283 HIV positive African Americans to explore how HIV-related stigma that negatively impacts African Americans, in areas such as anxiety. The findings suggested that social support from one's family and friends

is positively associated with perceived HIV-related stigma as well as major depression and alcohol dependence.

Barriers to Preventing HIV/AIDS Transmission

Numerous issues associated with HIV/AIDS impact the African American communities in general, such as stigma, and prejudice, and in many cases, extreme poverty. Jacobson (2011) and Kuehn (2008) argued that older adults are sexually active, however many Americans are unaware of this. Because older adults are sexually active, susceptibility to HIV infection is greater than younger adults. For example, older adults tend to have lower immune systems, which could shorten the HIV incubation period from 7.3 years for persons under age 50 to 5.7 years for older adults (Kuehn, 2008).

In addition, older adults may be at risk of HIV because of a decrease in using condoms, which emphasizes the need for different HIV prevention strategies for different age groups. Jacobson (2011) explained that many doctors are likely to stereotype older persons over 50 years old by not discussing sexual health, which could delay HIV diagnoses. On the other hand, older adults may be embarrassed to have open dialogue with their doctors about sexual health concerns. Jacobson (2011) and Kuhn (2008) made it clear that HIV/AIDS education designed to increase knowledge as well as discuss methods of protection for older adults should be community based.

According to Jarlais, McCarty, Vega, and Bramson (2013), HIV is also prevalent among those who inject drugs and share needles. In addition to sharing drugs and needles, persons engaging in this situation may participate in unprotected sexual encounters. Bowen (2012) and Jarlais et al. posited that many persons think that to

eliminate disparities in all ethnic groups, heterosexuals, men who have sex with men (MSM), interventions may include exchange of syringes, over-the-counter pharmacy sales as well as treatment for heroin use.

In the context of the Holt et al. (2012) study, ethnic MSM mistrust health institutions more than other groups about the origin, prevention and treatment of HIV/AIDS, and do not believe that their best interests are taken into account. Therefore, fostering negative attitudes about health institutions in many cases may be a moderator of unprotected sexual activities (Holt et al., 2012, p. 270). The Holt et al. (2012) longitudinal study took place in Arizona, in which 394 MSM participants were identified as gay, two spirited, or bisexual. The study examined the relationship between conspiracy beliefs, discrimination, organizational suspicion, and institutional mistrust. Results showed mistrust was higher among ethnic groups than Whites. The findings suggested that mistrust is reduced when HIV prevention in local communities is conducted by minority workers, and where prevention efforts are culturally appropriate.

Finlayson et al. (2011) posited that HIV infections in certain groups of people will continue to increase in the United States if coordinated responses are not addressed (p. 2). Research was conducted in metropolitan cities throughout the United States in 2008. Data were collected via survey interviews to determine if MSM reported having unprotected sex with casual and main partners, consumed alcohol or illegal drugs, or were diagnosed with a sexual transmitted disease (STD), received HIV testing, or received behavioral interventions. The study was limited in several ways. For example, the sampling selection only considered participants who attended venues such as bars.

In addition, the participants may have under or over reported socially undesirable behaviors such as not using condoms during sexual encounters or drug use.

The findings of the study suggested that effective evidence-based HIV prevention approaches should be used in those communities where HIV is heavily concentrated if a 25% reduction in new HIV infections optimized (Finlayson et al., 2011, p. 10). The findings further suggested that HIV status should be further explored in order to clearly understand how MSM continue to transmit HIV to casual and main partners.

Crepaz et al. (2009) examined 37 studies of low income and unemployed participants that showed African American females lacked negotiation skills related to condom use because of a power imbalance in relationships. Many African American females are dependent upon males for financial assistance. The study also showed that gender-specific and cultural components as well as skills building in negotiating safe sex practice training related to correct condom use should be delivered by women. The training would be significant in terms of successful HIV reduction.

African American Culture and Spirituality

Culture is important to African Americans (Martin et al., 2010). Martin et al. (2010) explored “the influence of culture and discrimination on care seeking behaviors of elderly African American” in the South (p. 311). A qualitative phenomenology study was conducted with 15 African American participants. In-depth interviews were conducted and indicated that several themes emerged such as distrust of doctors, race of doctors and the importance of spirituality on health issues. The study was limited due to the fact that generalizations could not be made. However, the findings may suggest that African

Americans religious and spiritual beliefs continue to guide their health care practices (Martin et al., 2010, p. 323).

Similarly, Taylor, Chatters and Arbor (2010) conducted a study to examine the importance of spirituality and religion in the lives of African Americans, Black Caribbean Blacks and non-Hispanic Whites. A total of 6,082 persons participated in face-to-face interviews in the participant's homes. Participants were 18 years old and older. The findings showed that African Americans and Caribbean Blacks had similar high levels of religiosity and spirituality than non-Hispanic Whites. The findings suggest that African American's religion assessments have practical implications for some levels of educational settings such as church-based social networks and supports related to intervention programs (Taylor, Chatters & Arbor, 2010, p. 289).

According to Hamlet (2011), African American church services are maintaining cultural expression traditions through call-and-response communications between preachers and congregants. Similarly, Gilbert, Harvey, and Belgrave (2009) argued that African Americans have a set of principles that assist them in addressing social problems. For example, the principles include creativity and faith in the African American struggle against discrimination as well as group stigma, family unity, and community unity. Gilbert et al. (2009) found that when the principles are incorporated into African American interventions, behavior change and community empowerment is reaffirmed, which has implications for engaging in HIV prevention.

AIDS-Related Stigma

Although community involvement and collaboration can shape African American adults' knowledge, attitudes, beliefs and sexual behaviors, AIDS-related stigma has been discussed recently, and has been a barrier to providing culturally, and sensitive HIV/AIDS prevention programs. Kern and Forman (2013) conducted research in New York State to examine outdoor campaigns related to Contemporary Public health AIDS and HIV advertisements in subway trains and stations that were placed at pedestrian's eye levels. The advertisement (ads) messages used key words, such as "We're Still Here" and "It's Never Just HIV" (Kern & Forman, 2013, p. 1149). Kern and Forman (2013) also examined each prevention campaign run time, target audience, funding, placement of public venue as well as the overall messages of HIV prevention. The messages focused on gay men, MSM, Hispanics (under 40 years old), and African Americans because these groups accounted for more than half (57%) of the new diagnoses in New York State. The findings of the study revealed the ads included scare tactics that added to stigma about HIV/AIDS in reference to reinforcing past ideologies that HIV is a gay disease, however, effective messages included the need to take personal responsibility (Noar, Palmgreen, Chabot, Dobransky, & Zimmerman, 2009).

Uhrig, Bann, Wasserman, Guenther-Gray, and Eroglu (2010) posited that effective campaigns are enhanced by formative evaluations of the specific messages that guide the development of sophisticated strategies. The study provided insight into the types of ad campaigns that show specific ethnic groups account for a high number of HIV cases in the United States. Efforts to reduce race and ethnicity health disparities may wish

to consider these outcomes (Uhrig, Bann, Wasserman, Guenther-Gray, & Eroglu, 2010). Ethnic differences and stigma are well documented as it relates to HIV/AIDS prevention. Generally, stigma is created when people pass judgment upon members of a group that goes against social norms (O'Brian, Bayoumi, Davis, Young, & Strike, 2009; Pace, 2011).

According to Grov et al. (2013), HIV-related stigma can lead to reluctance to disclose HIV status. Many Christian leaders advocate abstinence, but some religious communities targeting HIV/AIDS endorse the mainstream global HIV prevention strategies. Grov et al. posited that HIV-status stigma comes from a lack of understanding about HIV transmission, and men's mistrust about receiving inaccurate responses from possible online partners.

Similarly, Zamboni, Robinson, and Bockting (2011) argued that theories of HIV prevention can help to explain certain aspects of risk-taking behavior that occurs in a targeted population and can be useful as a framework for the goals of HIV/AIDS prevention (Coleman, Lindley, Annang, Saunders, & Gaddist, 2012) disclosing one's HIV status can decrease psychological isolation, stress and depression.

Theories of Intervention

Intervention programs are typically needs driven. Successful interventions require a change in behavior. Many interventions that focus on communication, beliefs, knowledge and the integration of theory combined with skills building provide opportunities for healthy life changes (Frye et al., 2012). A pilot study conducted by Frye et al. (2012) took place in New York City prior to developing a theory-based HIV/AIDS

group behavioral intervention titled, “Straight Talk” for African American heterosexual men who lived in the high prevalent, poor minority neighborhoods. The Frye et al. (2012) study integrated the rational choice theory, which posited that protected sexual practices are influenced by the individual’s attitudes and social norms, environmental factors such as poverty, incarceration, and lack of education attainment and behavioral control.

While the study indicated that HIV behavior interventions have been shown to be effective in terms of increased condom use, it did not include heterosexual women neglecting the problematic issues associated with negotiating condom use within casual relationships. The findings in the study also suggested that African American heterosexual men have the opportunity to adopt new safe sexual practices, as well as increase their knowledge and skills about HIV prevention. The theory of planned behavior provided specific insight into what may shape the community member’s attitudes, subjective norms, perceived behavioral control, intentions and sociodemographics about positive sexual behavioral practices, and how problems can be solved through church assessments and community involvement as well as collaboration. One approach to understanding high risk behaviors related to HIV is to examine the psychosocial antecedents of condom use, to develop effective theory driven HIV/AIDS training programs, and to learn more about people’s motivation to initiate participation in safe sex practices and maintain healthy behavior (Frye et al. 2012).

Research on the theory of reason action/theory of planned behavior has dominated this field of study. However, this model relied heavily on self-reports to measure behaviors, which can present memory bias. As a result, a baseline measurement

was done to measure the participant's intentions to change high-risk sexual behavior. The individual's attitudes, subjective norms, perceived behavioral control, socio-demographics about HIV, and the effects of the virus, can profoundly impact intentions to change behaviors, and the likelihood that the person will take the most appropriate action to prevent the illness (Ajzen, 2011).

More specifically, the attitudes, beliefs, and intentions have been significantly associated with the HIV risk behaviors in some populations (Ajzen, 2011). The TpB can be incorporated into specific educational programs and community settings in concrete ways. For example, the training varies depending upon the specific focus and audience. The TpB can be used to establish a foundation for the education program as well. The conclusions arising from this study served to address behaviors conducive to HIV/AIDS that are believed to be generalizable among the adult community. Public health efforts can potentially improve human and social conditions for this population by reducing the incidence of widespread health problems and multiple secondary effects, which may lead to the individual's physical impairment or death.

Summary

HIV/AIDS can be prevented by understanding the attitudes, subjective norms, and perceived behavioral control of a population by which the disease is acquired. A review of the literature revealed that, even though adults were knowledgeable about HIV/AIDS, their sexual risk behavior varies based on their ethnicity and cultural values. The Theory of Planned Behavior (TPB) described the behavior of an individual with no control over the behavior because of external influences. Ajzen (2011) mentioned that human action is

guided by: (a) a person's behavioral beliefs or attitudes, which are the belief and evaluation of the outcomes (decision to engage in safe sex or not engage); (b) normative beliefs, which are others expectations and the person's motivation to comply with the particular expectations or subjective norm; (c) the person's control beliefs, which are factors that allows easy or difficult performance in the particular behavior, or (d) perceived behavior control, which is acceptance of behavior. In other words, a particular behavior may be engaged depending on the adult's expected acceptance of their peers.

Additionally, the literature search identified numerous scholarly peer-review research articles to suggest that the identified population is starting to engage in significant dialogue with church leaders about HIV/AIDS transmission (Doody & Noonan, 2013). Social change can be realized by working with the community leaders to develop and implement church-based HIV/AIDS program training that will provide knowledge and skills to participate in the fight against the infection and disease (VanDevanter et al., 2011).

In the context of implementing church-based HIV/AIDS prevention training, community health advocates collaborated with church leaders to plan and implement annual health care revival meetings, to participate in screening activities, and dissemination of health information that was integrated with inspirational singing and scripture readings. This strategy incorporated a holistic approach, which emphasized the importance of integrating the spirit, the body, and the mind in efforts to improve the community's health (Parrill & Kennedy, 2011). Spreading the word to the community and decision makers about ways to protect and promote health may prove challenging but

necessary (Parrill & Kennedy, 2011). The degree and commitment to fight HIV/AIDS have increased substantially in recent years because of effective leaders in the community.

The church can be a responsible advocate in fighting against HIV/AIDS by developing culturally appropriate educational materials, and thus effect social change. The proposed study filled one gap in the literature by adding to the body of knowledge that church leaders and program planners can develop specific church-based HIV/AIDS prevention interventions suited for adults living in similar demographic areas that can help in developing educational interventions to reduce the risk of infection by gaining insight about the importance of attitudes, subjective norms, perceived behavioral control, and intentions relative to changing sexual risk behavior.

This chapter provided a picture of the literature on HIV/AIDS as it pertains to members of African American churches in the metropolitan South, the literature on the effects of attitudes, subjective norms, perceived behavioral control, and intention on behavior, and role of churches in HIV/AIDS education. The next chapter will address the methodological approach chosen to answer the research questions.

Chapter 3: Research Method

Introduction

The purpose of this quantitative cross-sectional study was to establish and compare attitudes, subjective norms, perceived behavioral control, and intentions to engage in safe sex practices, comparing two Christian church congregations, one with a HIV/AIDS prevention program and one without. This study's results may inform future public health practices and policies that will promote effective HIV interventions based on specific cultural and behavioral patterns. In Chapter 3, I address the research design and data collection methods and cover the research design/rationale, research methodology, questions, hypotheses, access to participants, participant selection and sample, ethical protection measures, instrumentation, data collection, role of researcher, and methods of data analysis as well as issues of reliability and validity.

Research Design and Rationale

A cross-sectional design was chosen to survey adults of two Christian churches in a metropolitan area in a city in the South on the topic of HIV/AIDS prevention. The cross sectional design was chosen because data were collected within a short time frame. The use of a survey provided a snapshot of the variables included in the study at one particular point in time. Additionally, the advantages of using a cross sectional approach to this study included the generation of data on many variables such as attitudes and behaviors and the generation of hypotheses for future research. The disadvantages included that causal relationships cannot be inferred, the sample size requirements were large, and generalizability is limited.

Participants completed a confidential and anonymous questionnaire to elicit information about the independent variable of exposure of church-based HIV/AIDS prevention program and dependent variables of attitude, subjective norm, perceived behavioral control, and intention to engage in safe sexual practices to prevent HIV/AIDS. The covariates included age, gender, church status, marital status, education attainment, and income. All items in the questionnaire were chosen because of their direct bearing on the two research questions, and each separate section of the questionnaire directly addressed one of these two questions.

The research approach and design for the study sought to answer the questions about how adults attending churches perceive the risks and consequences of HIV/AIDS, how their actual sexual behavior places them at risk for HIV/AIDS, and how they perceived their control over decisions about sexual risk behavior. Although HIV/AIDS and adult church members have been studied with a growing incidence of HIV/AIDS, in particular among adults, research within the adult age group has not been conducted.

Setting and Sample

The setting for the survey participation was either in a private room in church, the participant's home, or other private setting of their choice in this Southern city. To minimize contact with participants, the TPB questionnaire was distributed to both churches and placed in a vertical locked mailbox outside of the church offices. The two church congregations were selected for the study because one provided a HIV/AIDS prevention program and one did not. The church that did not provide HIV/AIDS prevention may not have yet been exposed to information acquired in the prevention

program that could enhance their knowledge and influence their perceptions of risks associated with HIV/AIDS. A total of approximately 200 active adults (100 plus participants from each church) attended the selected churches in 2014. Using the Creative Research Systems (2013) with an alpha of .05 and a power of 95, a sample of 132 individuals participates was needed in order to have a statistically viable sample of the total population.

The criteria for inclusion in the study were as follows:

1. Participant was a church congregant who received church-based HIV/AIDS prevention via a program in 2009.
2. Participant was a church congregant who did not receive church-based HIV/AIDS prevention via a program in 2009.
3. Participant identified him or herself as either 18 years of age or older
4. Participant was able to read and write English.

The exclusion criteria were as follows:

1. Participant was not 18 years old or older.
2. Participant was not able to read or write English.

Research Methodology

A research study design was based on the research questions, the sample size, ethical measures for participants, the budget, and the amount of time that was necessary to complete the steps in the process. A descriptive quantitative cross-sectional research design was selected for this study to focus on the individual cases of participants at one particular point in time. The study's goal was to establish and compare attitudes,

subjective norms, perceived behavioral control, intentions, and sexual risk behavioral practices of adults from two church groups as measured by age, gender, marriage status, education attainment, and income via a TPB questionnaire.

In addition, the study determined the relationship between the independent variable (exposure to the church-based HIV/AIDS prevention program) and the dependent variables, which included attitudes, subjective norms, perceived behavioral control, and intentions. The study was designed to compare the statistical differences in responses between individuals in both church groups.

Population

The target population was adults 18 years of age or older who are members of the congregation or attended the two selected churches. The participants identified themselves as 18 years old or older and able to read and write English.

Sampling and Sampling Procedures

The sampling strategy was based on a convenience sample of adult participants attending a church that had provided an innovative HIV/AIDS prevention program, and a traditional church that did not provide HIV/AIDS training to their congregation. Additionally, participants provided their age range to confirm that they were between the ages of 18 or older living in a region in the community. According to Creative Research Systems (2012), the sample size calculator indicated ensuring a confidence level of 95% and confidence interval of 5, as well as an approximate population of 100 people in each church. The sample size for this study ($n = 132$) was required to measure attitudes, subjective norms, perceived behavioral control, and intentions relative to sexual

behaviors regarding HIV/AIDS prevention responsibilities. As a result, the sample size was 64 participants from one church and 68 from the other.

Recruitment of Participants

Arrangements were made with church leaders to recruit participants through church service announcements, flyers, and invitation letters. Participants were informed that the TPB questionnaires should be completed in their home or other private environment of their choice. The study's contact flyer (see Appendix B) with information about the aim of the study, the risks, and benefits as well as how the information was collected was provided to both sets of church officials. Additionally, information on the flyer was included with a statement that participants who agree to complete the TPB questionnaire were implying informed consent, and all information obtained would be kept confidential (see Appendix D).

Ethical Protection Measures

Adult participation in the study was strictly voluntary (Terrell, 2012). To protect anonymity and privacy, the questionnaire was distributed to each church. Time was allowed for participants to complete the questionnaire in a setting of their choosing and then to return it in a sealed envelope to a locked vertical mailbox outside each church office, which was a location that was accessible but fairly private. During the introduction to the study, it was explained to participants that their identity and integrity of their answers would be protected, via my exclusive access to the documents. Participants' confidentiality was protected—neither their names nor their signatures were requested on the survey document.

All participants were assured that they were free to withdraw from the study at any time, without fear of reprisal, to protect them from any associated stress during the process of completing the questionnaire. In addition, it was made clear to all participants that if they decided to withdraw from the study after receiving the questionnaire, they did not have to return the survey because that particular questionnaire would be eliminated from the sample.

Although this research study posed no risks to the adult participants, some may have felt uncomfortable answering sensitive questions regarding sexual activities. Adult participants were informed that they would not receive any personal compensation for their participation in the study, and they would not give up any legal rights. Additionally, Walden University's Institutional Review Board approval was granted prior to data collection. Walden's approval number for this study was 05-09-14-0097025.

Instrumentation

The TPB is a general type of survey instrument that was modified to address safe sex practices (see Appendices E and F). The TPB survey was comprised of 13 questions designed to measure adults' attitudes towards using safe sex practices, the subjective norm, perceived behavioral control, and the intention about the behavioral outcomes, such as engaging in safe sex practices or not using condoms or dental dams during sexual relations.

Consequently, the TPB questionnaires were distributed to each church group to minimize contact with the participants as they received, filled out, and returned the

instrument. Another major advantage of quantitative research is that it allowed one to generalize one's findings beyond the participant group (Bernard, 2013; Creswell, 2013).

Data Collection

Data were collected using the adapted items from the TPB survey instrument, a guide to predicting specific intentional behavior. In addition, the TPB responses to questions were measured on a 7-point Likert scale. The TPB survey instrument asked questions about the participants' intentions to use condoms during sexual relations, attitudes toward the behavior, subject norm (beliefs), and perceived behavioral control. Each questionnaire was assigned a unique identification code to be used for organization and data analysis

Role of Researcher

The role of the researcher in the quantitative cross-sectional phase of this research study involved distributing the TPB survey instrument in a sealed envelope to two different church groups of participants. The questionnaires were distributed to each church, and participants were expected to complete it in a private setting of their choosing and return it in a sealed envelope to a locked mailbox at each church, thereby maintaining confidentiality. The standardized methods incorporated the use of a convenience sample selection, with reliability and validity checks of the survey instrument. Rigorous statistical analysis techniques were used to analyze the collected data. Finally, the data results were interpreted using the statistical significance of established functions and values.

Operationalization of Variables

Direct measures of attitude, subjective norm, and perceived behavioral control are sufficient to predict intention and behavior; however, if effective behavior change interventions are studied, then behavioral, normative, and control beliefs must be assessed (Ajzen, 2011). The TPB questionnaire addressed the variables of attitude, subjective norm, perceived behavior control, and intention of adults who have been exposed to a church-based HIV/AIDS prevention program and those who have not, with a four-section instrument corresponding to each of the variables as follows:

Section A: Attitudes

Attitudes are consistent favorable or unfavorable responses to a stimulus (Altmann, 2008). Four questions in this section were adapted to the cultural realities of the adult church population. The variable/scale score was calculated using a Likert scale of 1 to 7. The higher the attitude scores, the more positive the responses (see Table 2). Attitude scores towards condom use or dental dam use is being measured for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Table 2

Variable Related to Attitude

Survey Question 1: Having sex with only one partner (a monogamous relationship), is:

ineffective: 1: 2: 3: 4: 5: 6: 7: effective

Survey Question 2: Buying a condom or dental dam (a latex covering used to prevent exchange of bodily fluids), is:

ineffective: 1: 2: 3: 4: 5: 6: 7: effective

Survey Question 3: Using or asking a partner to use a condom or dental dam, is

ineffective: 1: 2: 3: 4: 5: 6: 7: effective

Survey Question 4: A partner's sexual history will influence my decision to engage in sexual activity with them, I:

strongly disagree 1: 2: 3: 4: 5: 6: 7: strongly agree

Section B: Subjective Norm

Subjective norm refers to perceived social pressure (Ajzen, 2011). Three questions in this section were adapted to suit the adult church population. The variable/scale score was calculated using a Likert scale of 1 to 7. The higher the subjective norm scores, the more positive the responses (see Table 3). Subjective norm scores towards condom use or dental dam use as the result of social pressure from family and friends was measured for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Table 3

Variable Related to Subjective Norm

Survey Question 1: Most people who are important to me think that:

I should not: 1: 2: 3: 4: 5: 6: 7: I should

use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

Study Question 2: It is expected of me that I use a condom or dental dam during sexual relations with *casual* or *regular* partners each day in the forthcoming month, it is:

extremely unlikely: 1: 2: 3: 4: 5: 6: 7: extremely likely

Study Question 3: The people in my life whose opinions I value would:

disapprove: 1: 2: 3: 4: 5: 6: 7: approve

of my using a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

Section C: Perceived Behavioral Control

Perceived behavioral control refers to an individual's perception of his or her ability to perform a specific behavior (Ajzen, 2011). Perceived behavioral control was measured by four questions inquiring about a person's confidence in whether he or she was capable of performing a specific behavior. Degrees of perceived control were measured by whether an individual affirms that he or she was in control of a behavior or that factors beyond his or her control determined behavior. A Likert scale from 1 to 7 indicated the degree to which the respondent agreed or disagreed with each statement,

with 1 as *strongly disagree* and 7 as *strongly agree* (see Appendix E). (see the perceived behavior control variable below in Table 4)

Table 4

Variable Related to Perceived Behavioral Control

Study Question 1: Most people who are important to me think that:

I should not: 1: 2: 3: 4: 5: 6: 7: I should

use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

Study Question 2: It is expected of me that I use a condom or dental dam during sexual relations with *casual* or *regular* partners each day in the forthcoming month, it is:

extremely unlikely: 1: 2: 3: 4: 5: 6: 7: extremely likely

Study Question 3: The people in my life whose opinions I value would:

disapprove: 1: 2: 3: 4: 5: 6: 7: approve

of my using a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

Study Question 4. It is mostly up to me whether or not I use a condom or dental dam during sexual relations each time in the forthcoming month:

strongly disagree: 1: 2: 3: 4: 5: 6: 7: strongly agree

Section D: Intention

Intention refers to a person's motivation to perform a specific behavior (Ajzen, 2011). An intention was based on attitude, subjective norm, and perceived behavioral control toward the behavior and usually precede behavior. Intention was measured by two questions inquiring about a person's intention to use condoms or dental dams. The

questions for perceived behavioral control, subjective norm and intention were constructed by the researcher with the aid of guidelines developed by Ajzen (2011) for TPB constructs. (see Table 5).

Table 5

Variable Related to Intention

Survey Question 1: I intend to use a condom or dental dam each day in the forthcoming month

extremely unlikely: 1: 2: 3:4: 5: 6: 7: extremely likely

Survey Question 2: For me to use a condom or dental dam during sexual relations with my *casual* or *regular partners* each time in the forthcoming month is:

harmful: 1: 2: 3: 4: 5: 6: 7: beneficial

unpleasant: 1: 2: 3: 4: 5: 6: 7: pleasant

bad: 1: 2: 3: 4: 5: 6: 7: good

worthless: 1: 2: 3: 4: 5: 6: 7: valuable

unenjoyable: 1: 2: 3: 4: 5: 6: 7: enjoyable

Instrumentation

The dependent variables such as attitudes, perceived behavioral control, and intentions were the variables addressed in the study. The attitude section listed four questions, the subjective norm section listed three questions, the perceived behavioral control section listed four questions, and the intention section listed two questions. The TpB survey instrument (see Appendix E) is comprised of 13 questions designed to measure adult's attitude towards using safe sex practices, the subjective norm, perceived behavioral control, and the intention about the behavioral outcomes, such as engaging in safe sex practices or not using condoms or dental dams during sexual relations. The

covariates included age, gender, marital status, church status, ethnicity, education attainment, and household income (see Table 6) Participants were asked to circle the appropriate answer for each item. For example, during the introduction to the survey, participants were free to ask questions about any items relative to the clarity of a question or statement (see Table 6).

Table 6

Covariates Related to Survey Questions

Survey Question 1: What is your gender?

Female Male

Survey Question 2: What is your age?

Survey Question 3: What is your church membership status?

Member Visitor

Survey Question 4: What is your current marital status?

never married divorced/separated
 married single (in a committed relationship)
 widowed single (not in a committed relationship)

Survey Question 5: What is your identity?

American Indian or Alaska Native
 Asian
 Black or African-American
 Hispanic or Latino
 Native Hawaiian or Other Pacific Islander
 Some Other Race
 White

(table continues)

Survey Question 6: What region of the city do you live in?

Northside Eastside Southside Westside

Survey Question 7: What education level have you achieved?

Less than 9th grade	Associate Degree
Some High School, no diploma	Bachelor's Degree
High School Graduate (or GED)	Master's Degree
Some College, no degree	Doctorate

Survey Question 8: What is your yearly household income?

Less than \$15,000	\$50,000-\$75,000
\$15,000-\$24,999	\$75,000-\$99,999
\$25,000-\$49,990	\$100,000-\$149,999
\$150,000-\$249,000	More than \$250,000

Methods of Data Analysis

In the quantitative cross-sectional study, Cronbach's alpha was used to measure internal reliability and test the multiple questions about each related concept such as attitudes. The attitude, subjective norm, perceived behavior control and behavior intention variables were measured by creating scales from the associated survey questions. The original survey questions were measured on a 7-point Likert scale. After entering the data each item was checked and rechecked to avoid any errors. Each item in the survey was entered in an Excel spreadsheet and imported into the Statistical Package for the Social Sciences (SPSS 21).

Before proceeding with the analysis, the data was confirmed as accurate and complete. Missing data were handled by discarding two discrepant cases. Final analysis was carried out on the remaining valid cases that remained.

Reliability and Validity

The survey instruments, pilot studies, and data reduction (Cronbach's alpha) are just a few of the methods usually reported in quantitative studies to judge if the instrument was reliable. Cronbach's alpha was measured on the data to determine internal consistency and reliability. Face and content validity of the TpB (survey instrument) was constructed based on adequate sample and coverage of participants being studied.

Threats to Validity

The potential threat of test reactivity in the measurement of identity was not a cause for concern in this study because the questionnaire was anonymous and names were not included. History was not a threat for the two groups for the comparison/control design used in the study. Maturation is not a threat to the two-group design; however sample selection may have been a threat because random sampling and random assignment was not conducted, which could have caused the comparison groups to be unequal. Mortality was a threat to the study because more than one group was being studied and only one participant returned the survey in the sealed envelope unanswered, which effected selection slightly and effects of selection may have existed. In addition, another participant did not return the questionnaire to the locked mailbox as instructed.

More specifically, pilot testing or test-retest reliability showed the results of the same survey instrument after being distributed and completed. This procedure allowed me to compare, and correlate data to determine if words should be reworded, or deleted from the survey instrument. Multiple items were used to measure the construct to determine the reliability of measurement (Kimberlin & Winterstein, 2008). In addition,

the procedures utilized were documented to check and recheck data during the research study process. The contextual data from two locations were compared to establish a baseline understanding of the phenomenon with which subsequent research can be compared. A trail of decision-making was presented regarding data collection and analysis during the research process (Lewis, 2009). Equally important was Lewis's (2009) explanation that the chance of the research being replicated in another setting is dependent upon the researcher's bias, positions, central assumptions, and selection of participants. Consequently, a comprehensive description of the study findings is presented in the findings of Chapter 4.

Summary

Chapter 3 focused on data collection methods and analysis for a descriptive quantitative cross-sectional research study. The ethical protection measures were discussed for the participants to ensure they are treated with respect. More specifically, specific protocols were described and completed to answer the research questions; described how the protocols were completed, justified the selected research design, and explained how the results were analyzed via statistical tests. Methods to ensure reliability, and validity of the survey instrument were discussed. These methods of inquiry lead to finding presented in Chapter 4 of the study.

Chapter 4: Results

Introduction

In this chapter, I address data collection and the statistical analysis of those data. The data were generated by responses to the modified TPB questionnaire that was used to assess HIV/AIDS prevention among adults in two Christian churches in a Southern city. The TPB protocol was also used as the conceptual framework. The results of the pilot test and the main study are detailed. Also covered in this chapter are the processes by which I converted the data, statistically analyzed them, interpreted the results through the conceptual framework, and tested the hypotheses based on the results of the Wilcoxon Signed Ranks Test. The following two research questions were asked:

1. To what extent does exposure to church-based HIV/AIDS prevention programs influence attitude, subjective norm, and perceived behavioral control of adult church attendees in the South?
2. To what extent does exposure to church-based HIV/AIDS prevention programs influence intention to engage in safe sex practices (condom or dental dam use) of adult church attendees in the South?

The hypotheses and four null hypotheses were tested by relevant statistical processes.

H_{01} : There is no statistically significant difference between attitude scores towards condom use or dental dam use for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A1} : There is a statistically significant difference between attitude scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{02} : There is no statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A2} : There is a statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{03} : There is no statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A3} : There is a statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{04} : There is no statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

H_{A4} : There is a statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Analyzing the Data

Pilot Test

The pilot test was conducted in May 2014 with 12 adult church attendees (six from each church congregation). Only adults who fulfilled the eligibility criteria were asked to participate in the pilot test. The purpose of the pilot test was to establish the face validity of the TPB questionnaire that was used in the study. The study was introduced during church services to inform possible participants about their choice to volunteer in the study. The 12 participants were asked to indicate if the items were difficult to answer, whether the questionnaire was too repetitive, too long, or if the wording was annoying.

Participants were allowed as much time as needed to read the informed consent form and complete the questionnaire. The questionnaires were retrieved from each church after a period of 1 week to allow sufficient time for participants to complete them. All 12 adults completed the pilot test questions, and there were no marks to indicate any of the questions were difficult or hard to understand; therefore, I assumed that the questions were clear (see Appendix D). The participants reported that the questions were clear to them; however, to address their feedback that some questions were repetitive, a content validity ratio (CVR) was performed on the questionnaire. The data collected and their correspondence with the purposes of the study were evaluated quantitatively by Lawshe's (1975) method. To apply Lawshe's method, expert panels of six professionals were

assembled who were familiar with the subject and asked to evaluate all the questions on the TPB questionnaire. The expert panel consisted of a physician, a pastor with a doctorate, two Masters level nurses, and two Senior Services HIV staff members. The experts on the panel were asked to indicate whether the questions were essential by responding to whether they understood the instructions, the intent of the study, any problems with the questions, and recommendations on how to improve the study, which was necessary for the operationalization of the theoretical construct.

According to Lawshe (1975), the formula used to quantify the content validity is as follows: content validity ratio (CVR) = $(ne - N / 2) / N / 2$ validated whether a question was essential or not if more than half of the panel reviewers agree. The *ne* is the number of panel reviewers (experts) who indicated the reagent was essential, while *N* is the total number of panel reviewers who reviewed the question for this reagent. The CVR is positive if more than half of the experts indicated that a particular question was essential and negative when more than half of the experts indicated the questions were essential. The CVR is zero when all of the experts indicated the quality of the question was essential. The panel evaluation concluded that two of the original questions were related but not essential to the operationalization of the TPB. The panel experts' recommendations were consistent with feedback from participants in the pilot test. The panel recommended a shorter version of the survey by maintaining the four questions in Section A (Attitude), three questions in Section B (Subjective Norm), and four questions in Section C (Perceived Behavioral Control), and reducing the number of questions from

four to two in Section D (Intention). The original survey can be found in Appendix D and the modified TPB questionnaire in Appendix F.

Data Collection

The study was introduced to both churches in the third week of May 2014 by announcing the opportunity to participate using the invitation letter, which included information that participation was voluntary and informed consent was implied. The questionnaires, Invitation Letter, and the Recruitment Flyer were enclosed in a sealed envelope and distributed to both church groups. If participants agreed to be a part of the study, the recruitment process began with when adults over the age 18 and above who were able to read and write accepted the sealed envelope with the questionnaire, invitation letter, and recruitment flyer inside. Participants were informed that there was no monetary compensation being provided. Participants were also informed that the information they provided was strictly confidential and did not require their names or any other personal information. Participants were instructed that they could fill out the questionnaires in their church office, home, car, or any other private area of their choice and that it would take about 15 minutes to complete, and they were asked to return surveys in 3 business days to a locked mailbox outside each church office. Some of the participants preferred to return the questionnaires within 1 week rather than 3 business days, so I agreed to allow them sufficient time to complete them in 1 week. The data collection commenced on June 8, 2014 and was expected to continue until June 15, 2014; however, 132 completed surveys were completed by the end of the day on June 8, 2014. The experimental group included 68 respondents and the control group consisted of 64.

The contents of the locked mailbox were retrieved from each church group, and then the analysis began. Data were manually entered into Excel spreadsheets, double-checked for accuracy, and then imported into SPSS 21 for analysis. The survey included eight demographic questions to determine the characteristics of the experimental and control group were similar. Tables 7 and 8 present descriptive statistics for the groups.

Table 7

Experiment Group Sociodemographic Main Study

Variable	<i>n</i>	Percent
What is your gender?		
Female	49	72.1
Male	19	27.9
What is your age range?		
18-25	6	8.8
26-35	14	20.6
36-45	12	17.6
46-55	18	26.5
56-65	11	16.2
65+	7	10.3
What is your church status?		
Member	57	83.8
Visitor	11	16.2
What is your marital status?		
Never married	8	11.8
Married	24	35.3
Widowed	4	5.9
Divorced/separated	13	19.1
Single in a committed relationship	9	13.2
Single (not in a committed relationship)	10	14.7

(table continues)

Variable	<i>n</i>	Percent
What is your racial identity?		
American Indian or Alaska Native	0	0.0
Asian	0	0.0
Black or African American	68	100
Hispanic or Latino	0	0.0
Native Hawaiian or Other Pacific Islander	0	0.0
Some Other Race	0	0.0
White	0	0.0
What region of the city do you live in?		
Northside	21	30.9
Eastside	25	36.8
Southside	12	17.6
Westside	9	13.2
What level of education have you achieved to date?		
Less than 9 th grade	3	4.4
Some High School, no diploma	6	8.8
High School Graduate (or GED)	17	25.0
Some College, no degree	27	39.7
Associate Degree	6	8.8
Bachelor's Degree	7	10.3
Master's Degree	2	2.9
Doctorate	0	0.0
What is your yearly household income?		
Less than \$15,000	16	23.5
\$15,000 - \$24,999	14	20.6
\$25,000 - \$34,999	6	8.8
\$35,000 - \$49,999	16	23.5
\$50,000 - \$74,999	7	10.3
\$75,000 - \$99,999	4	5.9
\$100,000- \$149,999	3	4.4
\$150,000- \$249,999	2	2.9
More than \$250,000	0	0.0

Note. *n* = 68.

Table 8

Control Group Sociodemographic Data Main Study

Variable	<i>n</i>	Percent
What is your gender?		
Female	40	62.5
Male	24	37.5
What is your age range?		
18-25	12	18.8
26-35	8	12.5
36-45	13	20.3
46-55	13	20.3
56-65	13	20.3
65+	5	7.8
What is your church status?		
Member	57	89.1
Visitor	6	9.4
What is your marital status?		
Never married	4	6.3
Married	21	32.8
Widowed	3	4.7
Divorced/separated	12	18.8
Single in a committed relationship	12	18.8
Single (not in a committed relationship)	12	14.7
What is your racial identity?		
American Indian or Alaska Native	0	0.0
Asian	0	0.0
Black or African American	63	100
Hispanic or Latino	0	0.0
Native Hawaiian or Other Pacific Islander	0	0.0
Some Other Race	0	0.0
White	1	1.6

(table continues)

Variable	<i>n</i>	Percent
What region of the city do you live in?		
Northside	27	42.2
Eastside	15	23.4
Southside	14	21.9
Westside	7	10.9
What level of education have you achieved to date?		
Less than 9 th grade	1	1.6
Some High School, no diploma	10	15.6
High School Graduate (or GED)	20	31.3
Some College, no degree	12	18.8
Associate Degree	4	6.3
Bachelor's Degree	9	14.1
Master's Degree	7	10.9
Doctorate	1	1.6
What is your yearly household income?		
Less than \$15,000	16	23.5
\$15,000 - \$24,999	14	20.6
\$25,000 - \$34,999	6	8.8
\$35,000 - \$49,999	16	23.5
\$50,000 - \$74,999	7	10.3
\$75,000 - \$99,999	4	5.9
\$100,000- \$149,999	3	4.4
\$150,000- \$249,999	2	2.9
More than \$250,000	0	0.0

Note. *n* = 64.

The sociodemographic data for the experimental group representing the church with an HIV/AIDS prevention program were obtained by asking eight questions in the last part of the survey. The demographic questions were asked to determine if the two samples were essentially identical, so if there was any significant difference in the attitudes and perceptions, those could be attributed to being exposed to the prevention program. Table 9 provides the mean and standard deviation of each of the demographic variables as well as shows if there is a significant difference between the two groups.

Table 9

Descriptive and Demographic Characteristics and Results From Difference of Means t-Test

	<u>Groups</u>				Sign.
	<u>Experiment</u>		<u>Control</u>		
Characteristics	Mean	SD	Mean	SD	
Gender	1.2794	.45205	1.3750	.48795	.024*
Age range	3.5147	1.47104	3.3438	1.58584	.422 n.s
Church status	1.1618	.37097	1.0976	.49015	.207 n.s
Marital status	3.3088	1.67739	3.6719	1.67194	.941 n.s
Race identify	3.0000	.00000	3.0625	.50000	.038*
Region of city	3.5588	11.78968	2.0938	1.21784	.174 n.s
Education attainment	3.8235	1.32644	4.0625	1.72631	.006*
Yearly house hold income	3.2647	1.93643	3.2656	1.92924	.968 n.s

Note. $p < .05$; n.s. = not significant.

Analysis indicated that the experimental group was slightly more educated than the control group. The results further revealed there are more men in the control than the experimental group, and therefore this could impact the results based on the literature (i.e., men are less likely to practice safe sex). The race of the participants in the study was predominantly African Americans in both groups with one white person in the control group and the significant finding in the table above is related to how the data was coded rather than any meaningful differences in the data. Overall, the two groups are statistically identical except the experimental group is better educated and is comprised of more women. Since both factors may be associated with a person likely to practice safe sex it may have some impact on the results.

Discrepancies in Data Collection

The experiment and control site church attendee samples were comprised of all English speaking persons and they were able to read and write. The total number of respondents from the combined church groups was 132; however the anticipated sample from the experiment site was 66 and 66 from the control site. The distribution of responses was slightly different than anticipated. The actual sample was 68 participants from the experiment site and 64 from the control site.

Results

Before the hypothesis could be tested, the underlying statistical assumptions of the study were addressed. The first was to produce a Cronbach's alpha for each of the scales used to test the key dependent variables in the study: attitude, subjective norm, and

perceived behavior control and intention. Once the questions used to create these scales are established as valid, then the statistical assumptions for the t-test were considered.

Cronbach's alpha measures internal consistency. It is commonly used as an estimate of the reliability of a test for the closeness of a set of items in a group. The attitude, subjective norm, perceived behavior control and intention scales/constructs were considered in turn.

Attitude

A numerical value was assigned to each potential choice in the attitude, subjective norm, perceived behavior control and intention scales. The Likert scales had seven potential choices such as (strongly agree, agree, neutral, disagree, and strongly disagree). The final average score represented the attitude, subjective norm, perceived behavior control and intention overall level of agreement toward the subject matter. A mean figure for all the responses was computed at the end of the survey.

The attitude scales are the result of participants answering the questions listed in the survey. The scale consisted of four questions. The first question asked the degree to which the respondent felt that having sex with only one partner (a monogamous relationship) was "ineffective to very effective in preventing HIV." Question number two asked: "Buying a condom or dental dam (a latex covering used to prevent exchange of bodily fluids) is effective or ineffective." Question number three asked, "Using or asking a partner to use a condom or dental dam is ineffective or effective." Question number four asked if "A partner's sexual history will influence my decision to engage in sexual activity with them." Cronbach's alpha was .87 for the scale as shown in Table 10. Since

the Cronbach's alpha is higher than 0.7 these survey questions are measuring attitude reliably.

Subjective Norm

The subjective norm scales are the result of participants answering the questions listed in the survey. The subject norm scale consisted of three questions about what was important about using a condom or dental dam with casual or regular partners in the forthcoming month. The first question in the scale asked, "Most people who are important to me think that that I should or should not use a condom or dental dam during sexual relations with casual or regular partners each time in the forthcoming month." The second asked, "It is expected of me that I use a condom or dental dam during sexual relations with casual or regular partners each day in the forthcoming month. The third question was, "The people in my life whose opinions I value would, disapprove or approve of my using a condom or dental dam during sexual relations with casual or regular partners each time in the forthcoming month." Cronbach's alpha for the scale was .79 as shown in Table 10. Since the Cronbach's alpha is higher than 0.7 these survey questions are measuring subjective norm reliably.

Perceived Behavior Control

The perceived behavior scales are the result of participants answering the questions listed in the survey. The perceived behavior control was measured using a scale that consisted of four questions for participants to answer related to their feelings about using condoms or dental dams during sexual relations. The first question for the scale asked: "For me to use a condom or dental dam during sexual relations with casual or

regular partners each time in the forthcoming month would be impossible or possible.”

The second asked, “If I wanted to I could use a condom or dental dam during sexual relations with casual or regular partners each time in the forthcoming month, definitely false or definitely true.” The third question asked, “How much control do you believe you have over using a condom or dental dam during casual or regular sexual relations each time in the forthcoming month, no control or complete control? The fourth question was, “It is mostly up to me whether or not I use a condom or dental dam during sexual relations each time in the forthcoming month, strongly disagree versus strongly agree.” Cronbach’s alpha for the scale was .86 as shown in Table 10. Since the Cronbach’s alpha is higher than 0.7 these survey questions would appear to be measuring perceived behavior control reliably.

Intention

The intention scales are the result of participants answering the questions listed in the survey. The intention scale was comprised of two Likert items. The first measured to what extent, “I intend to use a condom or dental dam each day in the forthcoming month.” The second asked, “For me to use a condom or dental dam during sexual relations with my casual or regular partners each time in the forthcoming month was beneficial, pleasant, good, valuable and enjoyable while many others believed condoms or dental dams were harmful, unpleasant, bad, worthless or unenjoyable.” Due to problems with the survey results, the data available for these two questions could not generate a Cronbach’s alpha. Since this scale could not be tested, it is not possible to determine if the survey appropriately measured intention. As a result, this variable

cannot be used in the analysis and the associated hypothesis could not be tested. (see Table 10).

Table 10

Cronbach's Alpha for Attitude, Subjective Norm, Perceived Behavior Control and Intention

Variable scale	Cronbach's Alpha
Attitude	.87
Subjective norm	.79
Perceived behavior control	.86

The three underlying assumptions for the independent t test are as follows: The test variable is normally distributed in each of the two church populations as defined by the experiment and control sites; the variances of the test variables are normally distributed, and the test variable scores are independent of each other (see Table 11). The Shapiro-Wilk test of normality was used to assess the test variables to determine normal distribution.

Table 11

Test of Normality for Attitude, Subjective Norm, Perceived Behavior Control

<u>Groups</u>						
<u>Experiment</u>				<u>Control</u>		
Shapiro-Wilk				Shapiro-Wilk		
Subscales	Statistic	df	p	Statistic	df	p
ATT	.727	68	.000	.572	64	.000
SN	.779	68	.000	.802	64	.000
PBC	.768	68	.000	.775	64	.000

Note. df = degrees of freedom; p, <.05; ATT = Attitude; SN = Subjective Norm; PBC = Perceived Behavior Control

If the data is normally distributed, the *p* value is above 0.05. Thus, the Shapiro-Wilk test for normality showed that the two church groups were positively skewed and it did not indicate normality. The findings shown in the Shapiro-Wilk test indicate that the distributions are not normal and it was determined that the independent t tests are not an appropriate test. Since the dependent variables are not normally distributed, the Wilcoxon signed ranked test was used to test the hypotheses. The Wilcoxon signed ranked test can be used to compare different participants within a match-pair study design and does not assume normality in the data. (see Table 12).

Table 12

Wilcoxon Signed Ranks Test for Attitude, Subjective Norm, and Perceived Behavior Control for the Experiment and Control Groups

Subscales	Groups		Z	p
	Experiment	Control		
ATT	23.22 (positive ranks)	20.31 (negative ranks)	-1.298	.194
SN	30.85	35.66	-1.710	.087
PBC	29.08	33.17	-3.320	.001

Note. MR = Mean Rank; Z = Z score; $p < 0.10$; ATT = Attitude; SN = Subjective Norm; PBC = Perceived Behavior Control;

A Wilcoxon matched pairs signed rank test was conducted by using SPSS version 21 (Green & Salkind, 2008) to determine whether there was a difference in the ranking of two church groups by the researcher. The results indicate that the P score for Attitude is greater than 0.10, which means there is no significant difference between the mean values and I cannot reject the null hypothesis. The P score for Subjective norm was less than 0.10, which means there is a significant difference between the mean values and I can reject the null hypothesis. The P score for Perceived Behavior Control was less than 0.10, which means there is a significant difference between the mean values and I can reject the null hypothesis.

Hypothesis

Hypothesis 1

H_{01} : There is no statistically significant difference between attitude scores towards condom use or dental dam use for individuals who have participated in a church-based

HIV/AIDS prevention program and those who have not. The null hypothesis cannot be rejected in favor of the alternative hypothesis. As shown in Table 12 there is no statistical difference between the control group and the experimental group in regards to attitude.

H_{A1} : There is a statistically significant difference between attitude scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Hypothesis 2

H_{02} : There is no statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not. The null hypothesis was rejected in favor of the alternative hypothesis because the P value was less than 0.10.

H_{A2} : There is a statistically significant difference between subjective norm scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Hypothesis 3

H_{03} : There is no statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not. The null hypothesis was rejected in favor of the alternative hypothesis because the P value was less than 0.10.

H_{A3} : There is a statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not.

Hypothesis 4

H_{04} : There is a statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not. The null and alternate hypotheses were dropped from the analysis because intention was not a valid construct for the survey.

H_{A4} : There is a statistically significant difference between intention scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not. This hypothesis could not be tested due to technical problems with the data that would not apply for statistical testing in SPSS (Green & Salkind, 2008). The problem may have been related to the way the data was coded/organized and distributed.

There is a chance that the exposure to church-based HIV/AIDS prevention did not statistically influence attitude, in the experiment or control group. The experiment group was found to be more highly educated than the control group, which could have impacted higher positive responses to some of the survey questions.

Summary

In this study, two principle questions were addressed. The first question investigated to what extent did exposure to church-based HIV/AIDS prevention programs

influence attitude, subjective norm, and perceived behavioral control of adult Christian church attendees in the South? The second question asked, to what extent did exposure to church-based HIV/AIDS prevention programs influence intention to engage in safe sex practices (condom or dental dam use) of adult Christian church attendees in the South? This question was not addressed in the study because two of the four proposed questions were dropped per the pilot test draft. With only two variables there should have been enough to do the analysis; however there were issues with how the data was coded/organized/distributed and the needed test to test for internal consistency could not be done. The findings in the study from the first question inferred that there is a chance that the exposure to church-based HIV/AIDS prevention did not statistically influence attitude, in the experiment or control group. The experiment group was found to be more highly educated than the control group, which could have impacted higher positive responses to some of the survey questions.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to research the influence of exposure to church-based HIV/AIDS prevention of adult church attendees in a metropolitan city in the South using the TPB as the framework by establishing and comparing the differences in attitude, subjective norm, and perceived behavior control scores for two churches. The theoretical framework explained that intention is the primary determinant of behavior and is influenced by attitude, subjective norm, and perceived behavioral control. The survey was distributed to two (experiment group and control group) church congregations in June 2014.

Interpretation of Findings

The results and findings of the study were presented in Chapter 4. A Wilcoxon Ranks Test was conducted to analyze the data and to test the three hypotheses. The research question addressed by the study was as follows: To what extent does exposure to a church-based HIV/AIDS prevention program influence attitude, subjective norm, and perceived behavioral control of adult Christian church attendees in the South? A second research question and fourth hypotheses could not be tested due to problems with the data.

Attitude

Attitude, according to Ajzen (2011), is an expression of a positive or negative value for a particular behavior. The Wilcoxon ranks test relating to the attitudes segment of the survey for the present study determined that there was not a statistically

significant difference between the experiment and control group mean scores on the survey. This study showed that a positive attitude value for a particular behavior can be improved by providing educational prevention training relative to church-based HIV/AIDS prevention for adults.

African American churches have been influential in working with diverse memberships of parishioners of all ages and socioeconomic strata (Berkley-Patton et al., 2008). A needs assessment was administered to church leaders who attended a Baptist Convention to learn more about TIPS and how to present HIV prevention education to their congregations. Four hundred church community members and 3,000 church members were exposed to the TIPS program. My research study is consistent with Berkley-Patton et al., 2008 to learn about the TIPS program from a Christian church group with a church-based HIV/AIDS prevention program. No significant differences were found between both Christian church congregations relative to attitudes about HIV/AIDS prevention.

Subjective Norm

The subjective norm is defined as a social pressure variable and is dependent upon the total normative beliefs (Ajzen, 2011). The subjective norm variable was addressed in the study by asking three questions measuring the importance of family and friends' opinions about using condoms or dental dams as safe sexual practices. The literature review demonstrated the dynamics of coping self-efficacy and social support, which was consistent with Miner et al. (2009) who examined the association between

social norms and unsafe sexual practices. The study concluded that the TPB increases understanding about safe sex and their belief that they can control the specific behavior.

Perceived Behavior Control

Perceived behavior control was measured with the use of four questions regarding the individual's confidence about whether he or she was capable of performing a particular behavior. This aspect of the study's result was consistent with Kennedy and Jenkins (2011) who wrote about promoting African American women and sexual assertiveness in reducing HIV/AIDS. My research study showed there was a statistically significant difference between perceived behavioral scores towards condom use or dental dam for individuals who have participated in a church-based HIV/AIDS prevention program and those who have not. The experimental group had more female participants and was more highly educated than the control group.

Intention

My research study was inconsistent with Kiene et al. (2008) who attempted to explain the variability in condom use attitudes, self-efficacy, and behavioral intentions that can vary day-to-day (perceived behavioral control) and behavioral intentions on a day-to-day basis. This study concluded that individuals who tended to have stronger behavioral intentions than those who tended to have weaker behavioral intentions may increase the likelihood of condom use. My study attempted to analyze intention behaviors; however, the variable intention was not analyzed due to problems related to the way that it was coded and distributed as well as not being able to be analyzed in the

research question and the hypothesis. The results of this study connect to the literature (Kiene et al., 2008).

Limitations of the study

There were several limiting factors identified with this study. First, the study was limited to adult members of two Christian churches in a metropolitan area of the American South. A second limitation was that the data were not collected on the participants' attitudes, subjective norms, perceived behavioral control, intentions, and sexual behaviors of adolescents. A third limitation was self-reporting because there may have been some participants who underreported actual experiences. A fourth limitation with this study was it did not include adults in other HIV/AIDS prevention programs. Additionally, the fifth limitation of the study was the problem identified with the intention research question and associated hypothesis. The intention scale was comprised of two Likert items. More specifically, a problem was identified with the way the intention scale was coded/organized/distributed; therefore, the data could not be analyzed along with the research question related to intention and the hypothesis.

The final limitation with the study was the experimental group being more likely to engage in safe sex than the control group due to demographic factors. Overall, the two groups were statistically identical, except the experimental group was better educated and was comprised of more women. Since both factors may be associated with a person likely to practice safe sex, it may have some impact on the results. The results of the study are generalizable to the two groups who participated in the study instead of the larger church attendee population.

Recommendations

I suggest several recommendations for further research that include expanding the number of Christian churches involved in the study, either within the same religious denomination or a cross section of other church denominations within several states related to successfully reducing HIV/AIDS by presenting a prevention message about certain sexual behaviors that predisposes people to certain diseases that are serious and sometimes catastrophic.

I also recommend collecting data over a longer timeframe to develop a larger sample size, especially for the adult population. Thus, a larger dataset may enable generalization of the study findings. I recommend further research be expanded to include mixed methods to further explore the concepts and components that influence exposure to church-based HIV/AIDS prevention for adults such as attitudes, subjective norms, perceived behavior control, and intentions to engage in safe sex practices.

The information provided by this study may assist public health officials as well as other researchers in conducting further research to assist with designing preventative campaigns that address the observed behaviors and develop interventions that are tailored to targeted group's behavioral goals. Another recommendation is that behavior modification should be promoted via segment-targeted campaigns to demonstrate the use of tools and other protective barriers that increase HIV/AIDS awareness in all populations about how to prevent the infection and disease. The findings from this study may help to add to the knowledge base given the limitations in previous studies related to

attitudes, subjective norms, and perceived behavioral control relative to engaging in safe sex practices among African American adults living in the South.

Implications for Social Change

HIV/AIDS is still on the rise in the Southern United States as evidenced by recent official statistics pointing to an increase in number of new cases of HIV (Alabama Public Health Department, 2012). However, research on the factors operating on the local population is limited, and only a few studies have been done on adults attending Christian churches in the South. The results of this study underscore the possibility that there is still much to be learned about differentiating factors such as gender, age range, church status, marital status, race identity, region living in the city, education attainment, and household income status influencing the targeted age group of 18 years old or older.

Awareness of the trends in sexual behavior among adults who attend mainline Christian church services can serve to identify future public health policies that would promote effective intervention strategies based on specific cultural and behavioral patterns observed among this population and others. The study focused on attitudes, subjective norms, and perceived behavioral controls relative to engaging in safe sex practices as the result of exposure to church-based HIV/AIDS prevention programs.

Conclusions

In this quantitative cross-sectional study including an experimental and control-group with a convenience adult sample, I explored the relationship between the exposure and influence of church-based HIV/AIDS prevention relative to attitudes, subjective norms, and perceived behaviors as it related to engaging in safe sex practices. The results

indicated that the two adult populations were representative of the population of interest. Wilcoxon Ranks Test was conducted to analyze the data and to test the three hypotheses. While there was not a statistical difference between the experiment group and control group related to attitudes, there was a statistical difference between the mean scores of subjective norm and perceived behavior control. That information can inform continuing research and education in HIV/AIDS awareness and in turn help with the prevention of HIV/AIDS.

The framework of the TPB partially explained the behavior of adults in this study. The findings will help fill an existing gap in the literature for the two particular populations because there are no previous studies on attitude, subjective norm, and perceived behavioral control, relative to exposure to church-based HIV/AIDS prevention among predominantly African American adult church congregations in the South.

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Appendix A: Invitation Letter

Introduction:

You are invited to participate in a research study. Your participation in the study is completely voluntary. Voluntarily consent to answering the questions in the questionnaire prior to completing it. You may leave the study at any time without fear of penalty. The information gathered in the questionnaire is strictly confidential. You may ask any questions about the study procedures, including the risks and benefits. You do not have to provide your name or other personally data. If you decide to participate, please take the questionnaire to your home or other private setting of your choice and complete it according to the specific instructions provided in each section. Upon completion of the study, an executive summary will be shared with the congregation, and a public meeting will be held to share results with stakeholders and any interested members of the public.

The Title of the Study is:

Church-Based HIV/AIDS Prevention for Adults

Purpose of Study: The purpose of this study is to provide insight into the attitudes, subjective norms, perceived behavioral control, intentions to engage in condom or dental dam use relative to adults and exposure to a church-based HIV/AIDS prevention program and one without. This study will fill the gap in the literature for this particular population, since there are no current studies on the attitude, subjective norm, perceived behavioral control, and intentions, among adults attending Christian church services relative to the infection and disease in the South.

Study Participants: Participants in this study identify themselves as adults attending a Christian church; the estimated number of adult participants is approximately 200, residing in the South, 18 years old or older, and able to read and write English.

Procedures: If you decide to participate, you will be asked to fill out a questionnaire in your home or other private setting of your choice. It will take about 15 minutes to complete. You will be asked about attitudes, subjective norms, perceived behavioral control, intentions and sexual risk behaviors as well as socio-demographics information. Once you have completed the questionnaire, put it in a self addressed sealed envelope and place it in a locked box outside of the church office within 3 business days.

Risks: There are minimal risks in this study. You may decide to discontinue participation in the study at any time. Declining or discontinuing participation in the study will not impact your relationship with the researcher in any way. Although I attend church and may be known as a retired registered nurse, this study is separate from those roles.

Benefits: You will not receive any monetary benefit from participating in this study; however the major benefit of this study is that the results may help in learning more about the attitudes and perceptions of individuals at risk of acquiring HIV/AIDS in this

population and also learn how to create church-based HIV/AIDS prevention programs that can help other societal groups to have a better quality of life.

Privacy and confidentiality:

Privacy and confidentiality are important and will be provided in this study.

Questions:

You may ask any questions you have now. Or if you have questions later, you may contact me via xxx-xxx-xxxx or xxx@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is xxx-xxx-xxxx. Walden University's approval number for this study is 05-09-14-0097025 and it expires on May 8, 2015. You are welcome to keep a copy of this invitation.

Appendix B: Invitation Letter to Possible Panel Reviewers

May 18, 2014

Dear:

In June of this year I will submit my dissertation proposal to the Walden University Doctoral Program in Public Policy and Administration, entitled “Church-Based HIV/AIDS Prevention for Adults.” The pilot test will be conducted in May, and the main study in June 2014 based on the data elicited by a 4-section theory of planned behavior questionnaire regarding the topic mentioned above, in addition to data on demographics of participants. The participants will all be adults attending Christian church services at the time of the study.

Experts are needed in the process to assess relevance of the questions and content clarity. The panel reviewers will consist of six individuals who are experts in the health care and other fields who have knowledge about the subject.

I think that your experience and participation in the healthcare and/or other field would bring helpful insight to the table; I would greatly appreciate it if you would agree to participate as a panel reviewer.

Please advise me of your willingness to participate.

Respectively,

Hattie N. Acheampong

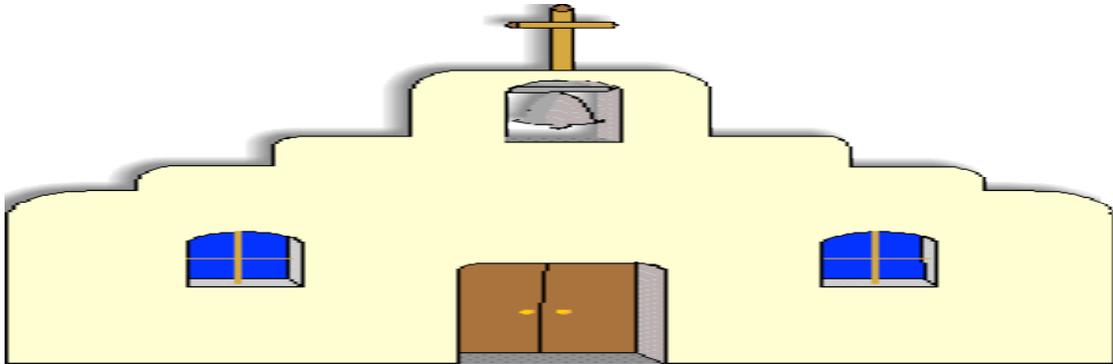
Appendix C: Panel Review Questions

TPB Development

Panel Reviewers Debriefing

1. After reviewing the pilot test: Did you understand all of the instructions?
2. Do you understand the intent of the study?
3. Did you have any problems with the questions?
4. Do you have recommendations on how to improve the study?

Appendix D: Recruitment Flyer



An opportunity to participate in research about Church Involvement with HIV/AIDS
Prevention Education for Adults

You are invited to take part in a research study conducted by Hattie Acheampong, a
doctoral student at Walden University.

If you identify as 18 years old or older and can read and write English,
You may be eligible to participate in this study.

If you would like to participate, or have any questions, please contact Hattie
Acheampong at xxx@waldenu.edu or xxx-xxx-xxxx.

The purpose of this study is to gain information about the attitude, subjective norm,
perceived behavioral control, intention, socio-demographic and sexual risk behaviors of
adults related to HIV/AIDS awareness and prevention. Your responses are important to
the development of prevention strategies for individuals in our church communities.

Appendix E: Pilot Test -Theory of Planned Behavior (TPB) Questionnaire

Thank you for agreeing to participate in this research study related to church-based HIV/AIDS prevention and attitudes, subjective norms, perceived behavioral control, intentions, sexual risk behaviors relative to adults who attend Christian church services. Please review the following questions and **circle (O)** the most appropriate response. Please keep in mind that all responses to the questions will be kept strictly confidential.

SECTION A: ATTITUDES

The following questions are intended to assess your attitudes towards sexual health topics. You may omit any question that you do not feel comfortable answering. Please indicate your answer for each behavior by circling the selected option. If you are in a *casual* partner relationship, **circle (O) casual**. If you are in a *regular* partner relationship, **circle regular** to show which relationship you are in.

1. Having sex with only one partner (a monogamous relationship), is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

2. Buying a condom or dental dam (a latex covering used to prevent exchange of bodily fluids), is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

3. Using or asking a partner to use a condom or dental dam, is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

4. A partner's sexual history will influence my decision to engage in sexual activity with them.

strongly disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

SECTION B: SUBJECTIVE NORM (social pressure)

The following questions are intended to elicit the subjective norm (social pressure) of your friends and family related to sexual health issues. Please **circle (O)** the number of your responses. If you feel uncomfortable answering any question, skip it and move on to the next one.

1. Most people who are important to me think that:
I should not: 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.
2. It is expected of me that I use a condom or dental dam during sexual relations with *casual* or *regular* partners each day in the forthcoming month. It is:
extremely unlikely : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely
3. The people in my life whose opinions I value would:
disapprove: 1 : 2 : 3 : 4 : 5 : 6 : 7 : approve
of my using a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

SECTION C: PERCEIVED BEHAVIOR CONTROL

The following questions ask about your feelings related to using condoms or dental dams during sexual relations. Please **circle** the number that best reveals your feelings about condom or dental dam use.

1. For me to use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month would be:
impossible: 1 : 2 : 3 : 4 : 5 : 6 : 7 : possible
2. If I wanted to I could use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month:
definitely false: 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely true

3. How much control do you believe you have over using a condom or dental dam during *casual* or *regular* sexual relations each time in the forthcoming month?
no control: 1 : 2 : 3 : 4 : 5 : 6 : 7 : complete control

4. It is mostly up to me whether or not I use a condom or dental dam during sexual relations each time in the forthcoming month:
strongly disagree: 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

SECTION D: INTENTION

Several items are used to assess behavioral intentions, as shown in the following examples. Please **circle (O)** the number that reflects your response.

1. I intend to use a condom or dental dam each day in the forthcoming month
extremely unlikely: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely

2. I will try to use a condom or dental dam each day in the forthcoming month
definitely true : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely false

3. I plan to use a condom or dental dam each day in the forthcoming month
strongly disagree: 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

4. For me to use a condom or dental dam during sexual relations with my *casual* or *regular partners* each time in the forthcoming month is:

harmful : 1 : 2 : 3 : 4 : 5 : 6 : 7 : beneficial

unpleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : pleasant

bad : 1 : 2 : 3 : 4 : 5 : 6 : 7 : good

worthless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : valuable

unenjoyable : 1 : 2 : 3 : 4 : 5 : 6 : 7 : enjoyable

Questions:

1. Are there any items that are ambiguous or difficult to answer?
2. Do you think the questionnaire feels like it is to repetitive?
3. Do you think the questionnaire is too long?
4. Are there any annoying features of the wording?

DEMOGRAPHIC DATA COLLECTION FORM/Back of TPB Questionnaire

Code Alphabet _____

Please answer the following questions designed to give me some basic information. Your personal information will not be shown to anyone outside of the study. You may leave a question blank if you don't want to answer it.

1. What is your gender? Check: Female Male
2. What is your age? _____
3. What is your church status?: Member _____ Visitor _____
4. What is your marital status right now?

never married	divorced /separated
married	single in a committed relationship
widowed	single (not in a committed relationship)
5. What is your identity?
 - Black
 - African-American
6. What region of the city do you live in?

Northside	Eastside
Southside	Westside
7. What education have you achieved to date?

Less than 9th grade	Associate Degree
Some High School, no diploma	Bachelor's Degree
High School Graduate (or GED)	Master's Degree
Some College, no degree	Doctorate Degree
8. What is your yearly household income?

Less than \$15,000	\$75,000 - \$99,999
\$15,000 to \$24, 999	\$100,000 - \$149,999
\$25,000 to \$34,999	\$150,000 - \$249,999
\$35,000 - \$49,999	more than \$250,000
\$50,000 - \$74,999	

THANK YOU FOR YOUR PARTICIPATION

Appendix F: Main Study – Modified Theory of Planned Behavior (TPB) Questionnaire

Thank you for agreeing to participate in this research study related to church-based HIV/AIDS prevention and attitudes, subjective norms, perceived behavioral control, intentions, sexual risk behaviors relative to adults who attend Christian church services. Please review the following questions and **circle (O)** the most appropriate response. Please keep in mind that all responses to the questions will be kept strictly confidential.

SECTION A: ATTITUDES

The following questions are intended to assess your attitudes towards sexual health topics. You may omit any question that you do not feel comfortable answering. Please indicate your answer for each behavior by circling the selected option. If you are in a *casual* partner relationship, **circle (O) casual**. If you are in a *regular* partner relationship, **circle regular** to show which relationship you are in.

1. Having sex with only one partner (a monogamous relationship), is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

2. Buying a condom or dental dam (a latex covering used to prevent exchange of bodily fluids), is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

3. Using or asking a partner to use a condom or dental dam, is:

ineffective: 1 : 2 : 3 : 4 : 5 : 6 : 7 : effective

4. A partner's sexual history will influence my decision to engage in sexual activity with them.

strongly disagree 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

SECTION B: SUBJECTIVE NORM (social pressure)

The following questions are intended to elicit the subjective norm (social pressure) of your friends and family related to sexual health issues. Please **circle (O)** the number of your responses. If you feel uncomfortable answering any question, skip it and move on to the next one.

1. Most people who are important to me think that:
I should not: 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.
2. It is expected of me that I use a condom or dental dam during sexual relations with *casual* or *regular* partners each day in the forthcoming month. It is:
extremely unlikely: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely
3. The people in my life whose opinions I value would:
disapprove: 1 : 2 : 3 : 4 : 5 : 6 : 7 : approve
of my using a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month.

SECTION C: PERCEIVED BEHAVIOR CONTROL

The following questions ask about your feelings related to using condoms or dental dams during sexual relations. Please **circle** the number that best reveals your feelings about condom or dental dam use.

1. For me to use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month would be:
impossible: 1 : 2 : 3 : 4 : 5 : 6 : 7 : possible
2. If I wanted to I could use a condom or dental dam during sexual relations with *casual* or *regular* partners each time in the forthcoming month:
definitely false: 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely true

3. How much control do you believe you have over using a condom or dental dam during *casual* or *regular* sexual relations each time in the forthcoming month?
no control: 1 : 2 : 3 : 4 : 5 : 6 : 7 : complete control

4. It is mostly up to me whether or not I use a condom or dental dam during sexual relations each time in the forthcoming month:
strongly disagree: 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

SECTION D: INTENTION

Several items are used to assess behavioral intentions, as shown in the following examples. Please **circle (O)** the number that reflects your response.

1. I intend to use a condom or dental dam each day in the forthcoming month
extremely unlikely: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely

2. For me to use a condom or dental dam during sexual relations with my *casual* or *regular partners* each time in the forthcoming month is:
 - harmful : 1 : 2 : 3 : 4 : 5 : 6 : 7 : beneficial
 - unpleasant : 1 : 2 : 3 : 4 : 5 : 6 : 7 : pleasant
 - bad : 1 : 2 : 3 : 4 : 5 : 6 : 7 : good
 - worthless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : valuable
 - unenjoyable: 1 : 2 : 3 : 4 : 5 : 6 : 7 : enjoyable

DEMOGRAPHIC DATA COLLECTION FORM/Back of TpB Questionnaire**Code Alphabet** _____

Please answer the following questions designed to give me some basic information. Your personal information will not be shown to anyone outside of the study. You may leave a question blank if you don't want to answer it.

1. What is your gender? Check: Female Male

2. What is your age range? _____

3. What is your church status?: Member _____ Visitor _____

4. What is your marital status right now?

never married	divorced /separated
married	single in a committed relationship
widowed	single (not in a committed relationship)

5. What is your race identity?
 - American Indian or Alaska Native
 - Asian
 - Black or African-American
 - Hispanic or Latino
 - Native Hawaiian or Other Pacific Islander
 - Some Other Race
 - White

6. What region of the city do you live in?

Northside	Eastside
Southside	Westside

7. What education have you achieved to date?

Less than 9th grade	Associate Degree
Some High School, no diploma	Bachelor's Degree
High School Graduate (or GED)	Master's Degree
Some College, no degree	Doctorate Degree

8. What is your yearly household income?

Less than \$15,000	\$75,000 - \$99,999
\$15,000 to \$24, 999	\$100,000 - \$149,999
\$25,000 to \$34,999	\$150,000 - \$249,999
\$35,000 - \$49,999	more than \$250,000
\$50,000 - \$74,999	

THANK YOU FOR YOUR PARTICIPATION

Appendix G: Taking It to the Pews Workshop Overview
XXXX Church Workshop for Church Ministries
HIV Presentation and Support for our Sisters

“Taking it to the Pews”: Pastor of this church presented sermons each Sunday to the congregation related to prevention of HIV/AIDS along with Biblical Scripture references.

As you may already know, the vast majority of Americans (92.5%) claim religious affiliation. Religious institutions touch the lives of America’s rich and poor, black and white, old and young. Members of the clergy continue to be respected as credible sources of advice and guidance. Places of worship have a history of helping their communities. They exist in virtually every community, providing channels through which important health information can be communicated to the even hardest of hard-to-reach populations. The church is the one place where HIV/AIDS health promotion programs can assure, that members of all ages acquire the knowledge and skills needed; to adopt and maintain behaviors that virtually eliminate their risk of becoming infected.

Participants Learning Outcomes:

- >Accurate and comprehensive knowledge about HIV/AIDS in women, which contributes to the development of attitudes, beliefs and behavioral skills that are effective in preventing the transmission of AIDS.
- >A clearer understanding of the female body and common diseases that affect it and why.
- > How to communicate accurate and complete information about the risks for HIV/AIDS, while reducing misinformation and eliminating irrational fears, anxieties and prejudices.
- >Encouragement of skills and behaviors that promote respect and appreciation for self and others, such as: acceptance of others; resisting pressure; and saying “No” – Abstaining from drugs, alcohol and sexual intercourse.
- > How to explain to and affirm values, and to develop the ability to make responsible decisions when tempted by behavior that place one at risk for HIV exposure.
- > Knowledge about social support for persons already infected with HIV or who have developed AIDS.
- > How to effectively minister to an HIV/AIDS infected/affected woman.

Workshop for Church Ministries

HIV Prevention and Support for our Sisters

Opening Prayer

Educational Slideshow on women (Positive vs Negative)

The following are areas the slideshow will discuss:

- Recent statistics on HIV infection rates in women
- New Transmission Trends
- Prevention techniques & practices
- Barriers to care
- Common diseases that affect HIV+ women (opportunistic infection)
- Gynecologic Conditions
- Anti-retrovirals and women (Birth Control)
- Hormonal changes in HIV+ women
- Pregnancy and HIV +women

Ministering with Compassion to the HIV+ women (Interactive session)

How to address the social and economic environment and be resourceful

to the individuals

How to address the mental health of a person

Depression and Substance abuse

Disclosure issues and Confidentiality among family, friends and church.

35 Minutes

Group Case Study

The class will be broken up in to three groups. Each group will be given a different assignment, to solve a situation that requires the help of the Compassionate Care Ministry.

Utilizing their Godly wisdom, and agape love, coupled with new knowledge gained during the earlier portion of the workshop; will effectively handle this situation. Each group will be named and assume the role of the Compassionate Care Ministry within the Congregation. A leader will be selected. The group members will brainstorm and become team players. The group leader will report to the audience the ministerial outcome for the group's Compassionate Care Ministry.

(20min. for group discussion and 5 min. each group to present)

35 Minutes

Closing Exercise

Each person will be given a stone. After which a poem will be read entitled “The Bitter Cold Within” as a comparison

Closing Prayer

Appendix H; Permission to Use the Theory of Planned Behavior in the Dissertation

Subject: RE: Permission to use the TPB Questionnaire in my Dissertation

Date: Tue, Nov 26, 2013 08:13 AM CST

From: Icek Ajzen <aizen@psych.umass.edu>

To : "Hattie Nettles" <hnett001@waldenu.edu>

Dear Hattie Acheampong,

The theory of planned behavior is in the public domain. No permission is needed to use the theory in research, to construct a TPB questionnaire, or to include an ORIGINAL drawing of the model in a thesis, dissertation, presentation, poster, article, or book. If you would like to reproduce a published drawing of the model, you need to get permission from the publisher who holds the copyright. You may use the drawing on my website (<http://www.people.umass.edu/aizen/tpb.diag.html>) for non-commercial purposes so long as you retain the copyright notice. Retrieved on 11/26/2013, via email from Icek Ajzen aizen@psych.umass.edu.

Best regards,

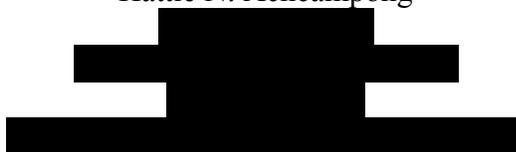
Icek Ajzen, Professor Emeritus

University of Massachusetts

Amherst, MA 01003

<http://www.people.umass.edu/aizen>

Curriculum Vitae
Hattie N. Acheampong



ACADEMIC EXPERIENCE:

- 2004-present Candidate for Doctor of Philosophy, Public Policy and Administration, Walden *University, Minneapolis, Minnesota*
- 2001-2003 Master of Public Policy and Administration, Auburn *University, Montgomery, Alabama*
- 1989-1995 Bachelor of Science in Nursing, Auburn *University, Montgomery, Alabama*
- 1989-1994 Bachelor of General Studies, Auburn *University, Montgomery, Alabama*

RELEVANT PROFESSIONAL EXPERIENCE

- 2007-2010 ***Associate Director of Policy Advisory Unit (Full-time)***
Alabama Medicaid Agency, Long-Term Care Division, Montgomery, Alabama
Responsible for identification and development of policies related to durable medical equipment and services for HIV/AIDS Waiver and other Medicaid eligible recipients; development and facilitation of public service communication; Medicaid services and supports workshops; supervision of general policy advisory unit staff; observation and evaluation of staff in the program of Technology Assisted Waiver for Adults; problem resolution; interviewing of potential nurse candidates; budget management.
- 1997-2001 ***Licensure and Certification Surveyor (full-time)***
Alabama Department of Public Health, Division of Health Care Facilities and Provider Services Unit.
Responsible for inspections that are generally conducted on-site over a three- to four-day period, during which the inspection team evaluates all aspects of resident care and nursing home procedures and practices, and assesses facility compliance with state and federal standards.
- 2001-2004 ***Outreach and Education Coordinator (full-time)***
Alabama Medicaid Agency, Montgomery, Alabama
Responsible for developing outreach and education PowerPoint presentations related to Medicaid's services and supports; developed brochures, newsletters and service Matrix; planning group outreach and education training; consultations with Medicaid eligible recipients to assist with referral of other resources as needed; supervision, development and administration of recipient's satisfaction

assessment survey instrument.

COMMUNITY SERVICE

2004 -present *American Cancer Society, Montgomery, Alabama*

2004-present *Montgomery AIDS Outreach, Montgomery, Alabama*

LICENSURE AND CERTIFICATIONS

Licensed Registered Nurse, State of Alabama, Received July 6, 1995

License #1-076726

Long Term Care Licensure and Certification Surveyor Minimal Standards

Qualification Certificate, Received August 18, 1997

PROFESSIONAL ORGANIZATIONS

American Society for Public Administration, Student Membership

American Nurses Association, Adult Membership

CLINICAL/RESEARCH INTERESTS

Church-based HIV/AIDS prevention; young and older adult attitudes, subjective norms, perceived behavioral control and intentions toward avoidance of high risk sexual behavior; factors involved in the development of HIV/AIDS culturally appropriate and sensitive interventions; Role of a tradition church in the development of a HIV/AIDS prevention program.

PROFESSIONAL PRESENTATIONS AND PAPERS

Nettles, H. (2002-2006). *The Medicaid and Medicare Connection, public speech at the Alabama Department of Senior Services Staff Training.*

Nettles, H. (2007- 2009). The Technology Assister Waiver for Adults, at the Alabama Department of Rehabilitation Services.

Acheampong, H. (2009-2010). HIV/AIDS Waiver for Adults, at the Alabama Department of Public Health Agency.