2015

# Perspectives on HIV/AIDS: American-Based Nigerian Women Who Experienced Polygamy in Rural Nigeria

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Abstract

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MBA, University of Ado-Ekiti, 2001

BSc, Chartered Institute of Marketing, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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## Abstract

Traditionally, in Nigeria women play a subservient role in relation to men. While a man can practice polygamy by marrying many wives, women cannot marry more than one husband at a time. Although researchers have documented the effects of polygamy on the spread of HIV/AIDS, little is known about the experiences of polygamy by Nigerian women who stopped practicing polygamy by immigrating to the United States without their husbands. It is important to know the experiences of these women as they pertain specifically to the spread of HIV/AIDS so as to develop a preventive intervention for HIV/AIDS among Nigerian women in polygamy. The purpose of this phenomenological study was to explore the perspectives on HIV/AIDS held by 10 Nigerian women who practiced polygamy in Nigeria before immigrating to the United States. Recruitment was done through purposive sampling at a faith-based organization. Guided by the health belief model, interview transcripts from the 10 women were analyzed to reveal recurrent themes that expressed the women's lived experiences in polygamy with their perspectives on HIV/AIDS. Findings revealed that these women had a basic knowledge of the risk of contracting HIV/AIDS by engaging in polygamy but needed to comply with the terms of sexual encounters as dictated by their husbands; therefore, they were at risk for HIV/AIDS. The results of this study can be used to increase awareness among Nigerian women in polygamy and Nigerian health policy makers regarding the transmission of HIV/AIDS and the preventive measures available for HIV/AIDS. Understanding the experiences of women in polygamy may lead to greater understanding of the impact of polygamy on HIV/AIDS and may help to decrease the prevalence of this disease.

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# Dedication

I dedicate this study to my husband and children for their support and love during this process.

Acknowledgement

I give thanks to God for all of my accomplishments. I appreciate the support of my family, Dr Jeanne Connors my Chairperson, Dr Schulze my committee member, and other people who have made this milestone possible through their prayers and words of encouragement.

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# Chapter 1: Introduction of the Study

This study was developed to explore perspectives on HIV/AIDS among Nigerian women who were in polygamous marriages in Nigeria but who currently reside in the United States and are no longer in polygamous marriages. A Joint United Nations program on HIV/AIDS (UNAIDS) report in 2012 estimated that global HIV/AIDS incidence was 35.3 million. According to the report, there had been 2.3 million new HIV infections globally in 2011, which represented a 33% decline in the number of new infections compared to 2001, when there had been 3.4 million. Similarly, the number of AIDS-related deaths was also declining, with 1.6 million AIDS deaths in 2012 compared to 2.3 million in 2005. The target of UNAIDS is to halve HIV/AIDS transmission by 2015. Despite the various steps that have been taken in terms of interventions of prevention and medication toward this target, significant challenges remain. Although there was a 50% decrease in new HIV infections among adults and adolescents in 26 countries between 2001 and 2012, other countries are far behind in pursuing the goal of reducing sexual HIV transmission by half. According to the UNAIDS report, "Although trends in sexual behaviors in high-prevalence countries have generally been favorable over the last decade, recent surveys in several countries in sub-Saharan Africa have detected decreases in condom use and/or an increase in the number of sexual partners." (p. 4).

The cultures of the sub-Saharan African countries have basic commonalities. The cultural practice pertaining to marriage in rural Nigeria, as in other African countries, is predominantly polygamous. HIV/AIDS interventions have brought awareness to the residents of urban areas, encouraging them to refrain from having multiple sexual

relationships and engaging in polygamy. However, rural residents do not enjoy the benefits of such interventions because of their deep-rooted cultures.

According to AVERT (2014), an international HIV and AIDS charity, Nigeria has a population of approximately 166.6 million people, and an estimated 3.1% of the population is living with HIV and AIDS. In 2009, it was estimated that there were 220,000 AIDS-related deaths in Nigeria. In 2010, the life expectancy was lowered from 54 years for women and 53 years for men to an average of 52 years for both (AVERT, 2011). The first cases of HIV/AIDS were identified in 1985, but the government did not respond to increasing transmission rates until 1991. At that time, the infection rate was 1.8 % of the population. Rates climbed during the 1990s, rising to 3.8% in 1993 and 4.5% in 1998, then increasing further to 5.8% in 2011 (AVERT, 2011).

Efforts to deal with the HIV/AIDS epidemic in Nigeria became a priority of the Nigerian government in 1999, but in 2006, statistics showed that only "10 percent of HIV-infected women and men were receiving antiretroviral therapy and only 7 percent of pregnant women were receiving treatment to reduce the risk of mother-to-child transmission of HIV" (AVERT, 2011). The main HIV transmission route in Nigeria is heterosexual sex, which accounts for 80%-95% of HIV infections (AVERT, 2011). It is culturally accepted for Nigerian men to have more than one wife and engage in sexual relationships with more than one woman. In African society as a whole and Nigerian society in particular, this is a show of wealth and power (Anyanwu, 2013). According to the Centers for Disease Control and Prevention (CDC, 2012), "Multiple sex partners and/or infection with another sexually transmitted disease, such as syphilis, gonorrhea and chlamydia increase the risk of an HIV infection" (p. xxx).

## Background

HIV/AIDS is recognized as a major problem in Nigeria, but there are gaps in HIV/AIDS health education initiatives. Most of these efforts have been focused on the major cities because of cultural sensitivities in rural areas (Obire, Nwakwo, & Putbeti, 2009). Obire et al. (2009) further revealed that high levels of illiteracy and stigma are factors leading to concealment of HIV status among rural people. Although the HIV infection rate in Nigeria is low (3.6%) compared to other countries in West Africa such as Cameroon (5.3%) and Gabon (5.2%), it still equates to 3.4 million people with HIV (UNAIDS, 2012). Additionally, Nigeria is the most populous country in sub-Saharan Africa and has the highest number of immigrants in the United States (UNAIDS, 2012).

There are various contributing factors associated with the spread of HIV/AIDS. Since the first outbreak of the virus, information has been gathered and studied regarding all facets of the disease, in an attempt to find methods by which to combat it either through prevention or medicine. According to Winn et al. (2006), HIV is one of the most devastating plagues facing humanity in the 21st century. It is changing societies and destroying lives, especially in the Third World. Nigeria, a country in southwest Africa that is one of the most populous countries of sub-Saharan Africa, has a high prevalence of HIV/AIDS. According to UNAIDS (2012) reports, 3.4 million people in Nigeria are HIV infected. Through trade and travel, rural dwellers are beginning to encounter a greater incidence of HIV. In addition, rural dwellers are more rooted in a culture that promotes polygamy and multiple sexual partners, as well as male dominance in sex encounters.

Nigerian culture affords men the authority to determine the terms of sexual encounters. The belief of many rural dwellers is that polygamy, multiple partners, and

gender inequalities are cultural ideas that have remained with the society as they have been passed down from generation to generation. Polygamy dates back to ancient times, when men showed off their wives and concubines as a sign of wealth (Doosuur & Arome, 2013). Polygamy also has significance in men's work as farmers. Traditionally, having many wives and children made it possible to pursue farm work. Gradually, polygamy became the way by which men could show their wealth and possessions (Doosuur & Arome, 2013). It is customary for a woman to remain married despite experiencing abuse. According to Nigerian tradition, and in present-day relationships, if a wife desires to avoid losing her husband or partner, she cannot demand that the husband use a condom during sexual encounters, or ask for testing for HIV before intimacy (Doosuur & Arome, 2013). Poverty adds its own share to this phenomenon. Men are richer than women are, causing disparity between the sexes, due to a cultural tradition of women not working. Most women are not allowed to work in Nigeria; therefore, wives are caregivers of children.

Rich men, because they hold the power conferred by economic means, are free to have numerous girlfriends, who are usually young sex workers looking for means of livelihood in order to pay for school fees and help their families. The culture in rural areas favors polygamy to a greater extent than the culture in urban areas, where education and exposure have afforded women the opportunity to stand for themselves. Nigerian women who migrate to the United States fall into this category. Through education and exposure to other cultures, Nigerian women have become empowered to reject or change the traditional belief that they are subject to the will of men and can be used to satisfy sexual urges. The participants of this study were Nigerian immigrant women who

married into polygamy in Nigeria but were, at the time of the study, living in the United States, either in single partner relationships or as single mothers. They were interviewed in this phenomenological study to share their lived experience of polygamy and their perceptions concerning how polygamy affects HIV/AIDS.

## Statement of the Problem

Researchers have revealed that high-risk sexual behaviors such as polygamy facilitate the spread of HIV/AIDS. CDC (2012) reported that "multiple sex partners and/or infection with another sexually transmitted disease, such as syphilis, gonorrhea and chlamydia increase the risk of an HIV infection" (p. xxx). Polygamy is a system of marriage that is practiced in Nigeria (Doosuur & Arome, 2013). This study addressed the lived experiences of Nigerian women who were involved in polygamy in Nigeria. During the study, the women were no longer practicing polygamy and resided in the United States. The study was conducted in an effort to understand the role that polygamy plays in the spread of HIV/AIDS. According to Do and Meekers (2009), women are more likely to report their risk of HIV/AIDS when they are aware of their husbands' or partners' sex escapades. A UNAIDS (2010) report from the National HIV/AIDS and Reproductive Health Survey (NARHS, 2007), indicated that more females (4.0%) than males (3.2%) were infected with HIV in Nigeria.

## Research Questions

RQ1: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?

RQ2: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS while in polygamy?

RQ3: How does Nigerian women's perception of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?

## Purpose of the Study

The purpose of this study was to explore perspectives on HIV/AIDS held by American-based immigrant Nigerian women who experienced polygamy in rural Nigeria before they immigrated to the United States. Previous studies on HIV/AIDS or polygamy used focus groups to interview both men and women as a group or women residing in Africa—a method that is likely to influence women's responses. This study was a phenomenological study of Nigerian women who were married into polygamy in Nigeria before immigrating to the United States, where they no longer practice polygamy. The goal of the study was to collect information from these women in order to determine what is needed to develop preventive interventions for women in polygamy so as to reduce the prevalence of HIV/AIDS. In addition, the study provides information to educate members of the younger generation in order to dissuade them from becoming involved in polygamy and multiple sexual relationships.

## Theoretical Framework

According to Rudestam and Newton (2007), without being placed within the context of a theory or model, a study will have no meaningful application. The theoretical model for this study was the health belief model (HBM). The HBM is widely used in the study of health beliefs and health behaviors. It has four constructs, which are developed to examine health-related behavior.

The first construct of the HBM, *perceived susceptibility*, suggests that when people are exposed to harmful behaviors, they are likely to have health problems

(Sharma, 2011). The second construct of the HBM, *perceived severity*, indicates that a person's belief, which is a driving force for actions, can result in harmful behavior that leads to death or disability (Sharma, 2011). The third construct of the HBM, which is *perceived benefits*, suggests that when people believe that there are benefits in participating in measures to reduce a certain health risk, they can change their behaviors (Sharma, 2011). The fourth construct of the HBM is *perceived barriers*, which suggests that there could be certain barriers to overcome in order to adopt a new behavior, such as time or money (Sharma, 2011). Closely related to this construct is *self-efficacy*; lack of self-efficacy can hinder change because new behaviors need to be learned (Sharma, 2011).

The women in this study were examined for their perceived susceptibility to HIV/AIDS as a result of being in polygamy. The study also examined how they perceived the severity of HIV/AIDS and the benefits derived from preventing it. Lastly, the study explored the women's perception of how efficiently women in polygamy can perform measures of safety such as using a female condom. According to Reynolds (2007), "most 'theories' emphasize relational statements, particularly causal statements" (p. 77). The HBM emphasizes a relevance of attitudes to perceptions.

## Nature of the Study

This study was a retrospective qualitative phenomenological study regarding the perception of HIV/AIDS by Nigerian women living in the United States. The women had lived in rural Nigeria and had been involved in polygamy. Rural Nigeria is less populated but much more culturally oriented than the urban areas. The choice of rural dwellers as the focus of this study stemmed from the observation that interventions for HIV/AIDS

are geared toward the urban areas, where there are less cultural sensitivities such as traditions preventing health initiatives. The participants were drawn from the Nigerian immigrant community of New Hampshire through a local church. The participants were individuals who lived with family members and spoke Yoruba as well as English language. I developed rapport with the participants through Yoruba, their native language.

## Research Method and Design

Qualitative research involves real-life situations through the exploration of "naturally occurring, ordinary events in natural settings" (Miles & Huberman, 1994, p. 10). This study adopted a phenomenological design. The reason for this choice was the nature of phenomenology, which was a good fit with this study and the study questions. The purpose of this study was to understand the meaning that people attach to cultural factors that promote the spread of HIV/AIDS such as polygamy, multiple sexual partners, and gender inequality in sexual relationships. A researcher taking a phenomenological approach investigates the lived experiences of people in order to know the meaning that the people attach to the experiences in their own words (Creswell, 2013). Moreover, this study was explorative and descriptive in nature; hence, it involved capturing the essence of the lived experiences of participants and developing a philosophical interpretation of the phenomenon under study.

## Operational Definitions

*Human immunodeficiency virus (HIV)*: A virus that weakens the immune system of the host through the destruction of cells that fight disease or infection in humans (Shors, 2009).

*Acquired immune deficiency syndrome (AIDS):* A collection of symptoms and signs of disease associated with a weakened immune system as a result of HIV (Shors, 2009).

*Antiretroviral therapy (ART)*: A therapeutic regimen for treatment of HIV/AIDS disease (Pennington, 2007).

*Rural population*: Refers to all populations, housing, and territories not included within an urban setting (U.S. Census Bureau, 2015).

*Urban population*: Refers to areas of 50,000 or more people or clusters of people totaling at least 2,500 and less than 50,000 (U.S. Census Bureau, 2015).

*Polygamy*: A system of marriage prevalent in Africa, where a man is married to more than one wife.

*Multiple partners*: The practice of having more than one sexual partner at a given time.

*Perception:* The manner in which an individual is able to think about a given concept; an individual's understanding of the concept.

*Nigeria*: A country in West Africa bordered on the west by Benin, on the east by Cameroon, on the north by Niger, and on the south by about 497 miles of the Atlantic Ocean.

*Gender inequality*: The unequal treatment of people based on their gender. Differences in the status, power, and prestige that women and men have.

*High-risk sexual behaviors*: Behaviors of a sexual nature that put people at risk of contracting STDs.

*Male dominance*: A situation in which men are considered superior to women.

*Sexually transmitted disease (STD)*: A disease that is transmitted from person to person through sexual contact.

## Assumptions

It was assumed that HIV/AIDS will continue to be an issue within the boundaries of Nigeria and around the globe. It was further assumed that cultural practices in Nigeria will gradually change if there is a designated reason for them to change. In addition, it was assumed that the Nigerian women of New Hampshire who met the inclusion criteria of this study would be willing to participate in interviews and that the information that they provided would be relevant to this study. Finally, it was assumed that the women would be interested in providing their opinions, and that those opinions would enhance the understanding derived through the study.

## Limitations

This study was limited by its reliance on the honest responses of participants who were recalling past experience. There was also the limitation of recruiting participants who were willing to share personal experiences in a face-to-face interview; there was a need to identify a pool of participants with the intention of finding 10-12 participants who were available and willing to participate in the interview.

## Scope

The study addressed the lived experience of polygamy by Nigerian women who reside within the New Hampshire area of the United States and who participated in a polygamous lifestyle while living in Nigeria. I sought interviews with no fewer than 10 women who had engaged in polygamy. The purpose was to gain a better understanding of practices and perceptions associated with the spread of HIV/AIDS. The sample

population was enough to obtain the data that served to ensure the significance of the study.

## Delimitations

This study was confined to women who previously lived in rural areas of Nigeria and who were living in the United States at the time of the study. It is believed that the choice of this population worked to narrow the focus. There might be immigrants who lived in urban areas of Nigeria who would be willing to speak with an interviewer for the purpose of gathering data. This necessitated a continued search until the desired group of women had been found.

## Significance of the Study

It is important to be aware of the lived experiences of women who have been involved in polygamy in relation to the contraction of HIV/AIDS. Polygamy is a system of marriage that allows a man to marry more than one wife. Previous studies (Jegede, 2002; Parker, 2000) addressed other factors that affect HIV/AIDS prevention and control such as politics, economics, and religion. Culture, however, is fundamental to health programs. This study was intended to contribute to the body of knowledge on the spread of HIV/AIDS by examining the role played by polygamy. By soliciting the perspectives of women who have been involved in polygamy, I sought to support an intervention such as skills training in the use of the female condom to prevent transmission of disease in polygamous marriage. It is difficult to change culture. As polygamy is a cultural belief and efforts to change a longstanding culture can evoke hostility, the aim of this study was to indicate ways to prevent sexually transmitted diseases including HIV/AIDS in polygamous marriage. It is anticipated that the information presented through the

gathering and analysis of data in this study will further the body of research associated with HIV/AIDS. The study was also aimed toward stopping the spread of the disease through potential changes in behavior. The ultimate goal is to bring awareness to the younger generation about the negative effects of polygamy and multiple sexual relationships in order to encourage a gradual end to a negative health behavior. The information gathered from this study will be disseminated to the Nigerian Ministry of Health and the Nigerian Ministry of Education in order to develop an initiative to empower Nigerian women to prevent and control sexually transmitted diseases.

## Implication for Social Change

This study has implications for positive social change. It may promote a reduction in the prevalence of HIV/AIDS in Nigeria by advocating for safer sex practices among people who are married into polygamy as a consequence of cultural belief. In addition, the research is expected to culminate in health education and promotion efforts toward discouraging polygamy. Polygamy has been reported through research studies as a factor that promotes HIV/AIDS.

## Summary of Chapter 1

According to a UNAIDS (2012) report on the global AIDS epidemic, the most populous nation in sub-Sahara Africa, Nigeria, has a 3.4% prevalence of HIV/AIDS. The incidence of infection is greater in the country's urban areas; hence, there have been more interventions to prevent and manage the disease in cities than in rural areas. Interventions have been few in rural areas due to longstanding traditions that include polygamy and multiple sexual relationships. Studies have shown that multiple sexual relationships are a precursor to the spread of HIV/AIDS.

Chapter 1 has included a brief introduction to the study and a discussion of what will be covered within the confines of the dissertation. Chapter 1 has contained basic background on the problem of HIV/AIDS prevalence globally and in Nigeria and the factors that have contributed to increasing the prevalence of the disease. This background information has led to an assertion of the general problem, followed by a clear description of the research questions that the study was designed to answer. The theoretical framework that was used in the completion of this study was the health belief model. Each of the associated components of the framework provides a better understanding of the methodology that was used in the completion of the study. Operational definitions have been provided in order to ensure increased reliability should future researchers wish to replicate the study.

The assumptions, limitations, scope, and delimitations of the study have been reviewed in order to ensure that no confusion arises regarding the process of the study. Finally, the significance of the study has been discussed to show how the study may serve to benefit the current body of research and may have implications for positive social change.

Chapter 2 addresses the literature associated with this topic and the research strategies employed in order to provide additional background and context associated with the study.

# Chapter 2: Literature Review

The purpose of this study was to explore the perspectives on HIV/AIDS held by U.S.-based immigrant Nigerian women who had experienced polygamy in rural Nigeria. The goal was to determine what is needed to develop preventive interventions for women in polygamous relationships.

## Review of the Literature

I searched through scholarly articles in Walden University library databases such as EBSCOhost, ProQuest, MEDLINE, CINAHL, and AIDSLINE, as well as the websites of government and international institutions. I read articles published between 2009 and 2014 that are related to HIV/AIDS and polygamy globally, in sub-Saharan Africa, and in Nigeria. I found up to 30 articles on HIV/AIDS and five on polygamy. Articles that were over 5 years old were also used because there were limited studies on polygamy. I focused principally on articles related to women in polygamy and gender roles in marriage, reading through their purpose, research questions, and methodology sections to discover the gap in the literature. Studies that focused on lesbian, gay, bisexual, and transgender (LGBT) and single women without a male partner were not included. Additionally, I did a thorough search regarding the history of HIV/AIDS.

The chapter begins with an overview of HIV/AIDS, its history, and its impact on society at the global, continental, and national levels. The overview is followed by a brief discussion on the practice of polygamy in Nigeria. The third section of the chapter provides a review of studies on the relationship between polygamy and HIV/AIDS, with a focus on whether polygamous relationships increase vulnerability to HIV infection. The chapter concludes with the theoretical foundation and a summary.

## Overview of HIV/AIDS

HIV is a slow-replicating virus that weakens the immune system by destroying the T-cells or CD4 cells in the bloodstream. The primary function of these cells is to fight disease and infection (U.S. Department of Health & Human Services [DHHS], 2014). There are three stages of HIV infection. These stages are dependent on factors such as age, HIV subtype, coinfection with other viruses, nutrition, stress, genetic background, antiretroviral therapy, and the ability of the infected person to follow a doctor's recommended treatments (DHHS, 2014).

The first stage of HIV is the acute infection stage. This stage is characterized by symptoms such as fever, sore throat, rash, muscle and joint pains, and headaches. These tell-tale symptoms appear within 2 to 4 weeks after infection (DHHS, 2014). At this stage, the virus reproduces rapidly within the bloodstream by using and ultimately destroying CD4 cells. At this stage, the risk of transmission is particularly high because high levels of the virus are circulating in the bloodstream. Once the majority of CD4 cells have been destroyed, the virus enters the second stage—clinical latency. In the clinical latency stage, the disease continues to develop, but at a slower pace, and the symptoms present in the acute infection stage will have dissipated or disappeared entirely (DHHS, 2014). Although infected people are symptom free, they remain at high risk of transmitting the virus to others. Individuals who take antiretroviral therapy (ART) may remain at the clinical latency stage for years or decades and are at lesser risk of transmitting the virus.

People in the clinical latency stage who do not seek treatment will eventually experience an increased viral load and significantly decreased CD4 cell count. When a

person's CD4 cells fall below 200 cells per cubic millimeter, he or she is considered to have progressed to AIDS, the third stage of HIV (Kanki, 2013). A person with AIDS is vulnerable to infections and infection-related cancers or opportunistic infections (DHHS, 2014). Individuals with HIV who develop opportunistic illnesses are considered to have progressed to AIDS, despite having CD4 counts above 200 cells per cubic millimeter. The life expectancy of persons who progress to AIDS without treatment is from 1 to 3 years.

## History and Origin of HIV/AIDS

The first description of HIV/AIDS was published in the June 5, 1981, issue of *Morbidity and Mortality Weekly Report* by the CDC (De Cock, Jaffe, & Curran, 2011). HIV is believed to have originated from nonhuman primates in sub-Saharan Africa and was communicated to humans at the turn of the 20th century (Chavan, 2011). A phylogenetic analysis of HIV and the simian immunodeficiency virus (SIV) of chimpanzees revealed that the cross-species transmission, or zoonosis, occurred early in the 20th century; however, uncertainty remains about the circumstances behind the zoonosis (De Cock et al., 2011).

The most widely accepted theory regarding this zoonosis is the hunter theory, which posits that chimpanzee SIV was transferred to humans as chimpanzees were killed and eaten by hunters or when hunters' flesh wounds were infected by chimpanzees' blood (Chavan, 2011; Wolfe et al., 2004). Although SIV is inherently a weak virus that can be suppressed by the human immune system, the theory suggested that several rapid transmissions of the virus from one individual to another enabled the virus to mutate into HIV (Chavan, 2011). Some theorists have suggested that this rapid transmission may

have been a result of repeated use of unsterilized disposable plastic syringes with multiple patients, of which one or more may have had SIV (Katrak, 2006).

Arguably the most controversial theory on the origin of HIV/AIDS involves the oral polio vaccine (OPV). According to this theory, it is posited that HIV can be traced to an OPV called CHAT that was allegedly harvested from kidney cells of SIV-infected local chimps (Katrak, 2006). The CHAT vaccine was believed to have been administered to approximately 300,000 people in the former Belgian colonies of Africa, or present-day Democratic Republic of Congo, Rwanda, and Burundi. However, recent analysis of the CHAT vaccine showed that it had no trace of either HIV or SIV; rather, the original developers of the OPV used macaque monkey kidney cells for harvesting, which could not have been infected by either virus (Berry et al., 2005). Other theorists continue to contest, debate, and test this theory, and controversy persists as more evidence from both sides of the debate continues to emerge.

A more recent theory is that of colonialism. The theory of colonialism is loosely based on the hunter theory and the contaminated needle theory, but it provides a more thorough and concise description of the circumstances surrounding the zoonosis. Proposed by an anthropologist and two postgraduate students, the colonialism theory indicates that the zoonosis can be traced to colonial practices in French Equatorial Africa and the Belgian Congo (Katrak, 2006). During colonial rule, the African natives endured poor diets and sanitation, and they worked to exhaustion. The combination of lack of adequate resources, which forced doctors to reuse unsterilized needles and syringes, and a rampant sex trade contributed to undermining people's immune systems, making them more susceptible to infection (Katrak, 2006). Thousands of laborers would have died

before showing symptoms of AIDS, while those who showed symptoms would not have appeared any different from others who were infected with other diseases (Katrak, 2006).

## Global HIV/AIDS

As HIV/AIDS continued to spread globally, national and international efforts were expanded to understand, prevent, treat, and educate people about the virus and the disease. In the United States, the CDC created a dedicated entity, the Division of HIV/AIDS Prevention (DHAP), tasked with the dual purpose of educating the public to prevent the spread of HIV and helping those who had already tested positive for HIV to live with the disease and gain access to antiretroviral treatment. The CDC and health departments of other countries have collaborated to build strong and sustainable programs to respond to the HIV/AIDS epidemic. At the international level is the Joint United Nations Programme on HIV/AIDS, or UNAIDS, which was launched in 1996 to strengthen the global response to the disease led by the United Nations (Knight, 2008). Experiments and research conducted under the auspices of the UNAIDS are intended to improve the understanding of the disease, especially new infections and strains that develop as the virus is transmitted, and to design treatments to these new strains of the virus (D'Angelo, Pollock, Kiernicki, & Shaw, 2014). Such efforts have led to the development of and increased access to antiretroviral treatments that allow people to live full lives without developing other diseases related to HIV.

The UNAIDS maintains consolidated records of HIV/AIDS statistics globally, including number of infections, strains, and treatments provided to people living with HIV. According to the latest report released by the UNAIDS (2013), there are approximately 35.3 million people living with HIV globally. New HIV infections have

dropped by 33% since 2001 (i.e., only 2.3 million people became newly infected with HIV in 2012), which was a significant decrease from 3.4 million in 2001. Among children, the rate of infection dropped by 52%, with only 260,000 children newly infected in 2012, down from 550,000 in 2001 (UNAIDS, 2013).

Improvements have also been made in the number of AIDS-related deaths. The greatest number of AIDS-related deaths reported per year occurred in 2005, when 2.3 million deaths associated with AIDS were recorded. This staggering number was reduced by 30% in the latest report from the UNAIDS (2013), which indicated that only 1.6 million deaths from AIDS-related causes were reported worldwide. HIV/tuberculosis remains the primary cause of death among people living with HIV; however, the number of tuberculosis-related deaths has fallen by 36% since 2004 (UNAIDS, 2013). Such improvements have resulted from increased access to care and enhanced ART. As of 2013, approximately 9.7 million people living with HIV had access to ART in low- and middle-income countries, a number that represents approximately 34% of people eligible for treatment under the 2013 World Health Organization guidelines (UNAIDS, 2013). Improved access to ART and heightened educational awareness programs worldwide were made possible by increased investments in HIV response and prevention programs (UNAIDS, 2013).

## HIV/AIDS in Africa

Because the origin of HIV was traced to Africa, the number of people living on the continent with HIV is higher than in other parts of the world. More specifically, the majority (almost 71%) of all people in the world living with HIV reside in the sub-Saharan region of Africa (D'Angelo et al., 2014; Hajizadeh, Sia, Heymann, & Nandi,

2014; UNAIDS, 2013). Within this region, studies have revealed a greater prevalence of HIV/AIDS among individuals with higher socioeconomic status (Hajizadeh et al., 2014). This distribution stands in contrast to those in Swaziland and Senegal, where HIV/AIDS is concentrated among poorer individuals (Hajizadeh et al., 2014).

In other African countries, such as Kenya, Uganda, and Zambia, HIV/AIDS prevalence is greater among urban poor and rural rich adults (Hajizadeh et al., 2014). The concentration of HIV/AIDS among rural individuals of higher socioeconomic statuses and urban residents in sub-Saharan Africa, which is in contrast with other parts of the world, warrants further research to better explain and understand the factors that lead to or predict such statistics. Considerable research has been conducted regarding the prevalence of HIV/AIDS in the region, including assessment of the extent of the spread of HIV/AIDS, the role of politics and media in prevention and care, people's levels of understanding on the issue, how people are educated about the disease, and stigma and stereotyping surrounding the condition.

Because the majority of people living with HIV/AIDS are in sub-Saharan African countries, much global attention, policies, and funding have been allocated to the region (Smith, Ahmed, & Whiteside, 2011). The HIV epidemic in this region has had tremendous long-term demographic and social impact on the population, and internal funding is inadequate to address the issue. Despite continuous funding from foreign governments and international organizations, there remains a great need to improve access to antiretroviral treatment and management options for people living with HIV/AIDS, as well as to increase preventive measures such as training and education to minimize transmission (Nkhoma, Seymour, & Arthur, 2013).

Perhaps the most common method by which people learn about developments, statistics, and availability of treatment for HIV/AIDS is through mass media, such as television news reports, newspapers, magazines, and radio. These media play a part in disseminating information about the disease and educating people about prevention, their options, access to medical attention, and the need for antiretroviral maintenance. Given the importance of the media in the fight against HIV/AIDS in sub-Saharan Africa, the media warrants scrutiny and monitoring to ensure that reporting is responsible and that dissemination of information remains on point and accurate.

In a systematic analysis of the impact of press-state relations or media systems on HIV/AIDS news coverage in African Anglophone newspapers, the contained democratic media systems in South Africa and Nigeria were found to allow for greater positive societal-level responses than repressive autocratic media systems in Zimbabwe and Kenya (D'Angelo et al., 2014). Contained democratic media systems are identified by the following characteristics: (a) broadcasting is conducted by both public and private entities, (b) newspapers are mostly privately owned because there are few state regulations on the press, (c) there is moderately high press autonomy and professionalism, and (d) newspapers are relatively unidentified with political parties (D'Angelo et al., 2014). On the other hand, repressive autocratic media systems are characterized by the state owning and running all broadcasting and supervising both public and private newspapers, as well as by low press autonomy and high political parallelism (D'Angelo et al., 2014).

In analyzing two examples of each of these two media systems, D'Angelo et al. (2014) discovered some differences with regard to coverage and information

dissemination of HIV/AIDS news. Stories and articles emanating from contained democratic media systems focus on the government agencies that are responsible for addressing the social costs of HIV/AIDS. These articles often cite prevention campaigns as more efficacious than is made evident in repressive autocratic media systems (D'Angelo et al., 2014). The different news agendas of these two opposing media systems have implications for people's knowledge about HIV/AIDS disease transmission and prevention. Media content affects people's decisions, priorities, and lifestyle. In the case of HIV/AIDS, these choices can be catastrophic, especially if facts are misrepresented and the public is misinformed. This study is expected to provide information to the Nigerian Ministry of Health on knowledge and attitudes relating to the spread of HIV/AIDS held by women who are affected due to their submissive role in polygamous marriage. This could give correct information that has been lacking in different types of mass media that may lead to adequate prevention and control of HIV/AIDS.

## HIV/AIDS in Nigeria

As part of sub-Saharan Africa, Nigeria has fought the HIV/AIDS epidemic since the early 1980s, when the disease was first described and recognized globally (Obidoa & Cromley, 2012). Since those early days, the Nigerian Federal Ministry of Health has monitored the transmission of the disease and created programs and policies to address the epidemic. Although the rate of HIV/AIDS in Nigeria rose from 1.8% in 1991 to 5.8% in 2001, such efforts by the Ministry of Health, along with foreign and international support, reduced the prevalence to 5.0% in 2003, 4.4% in 2005, and 3.6% in 2012 (Obidoa & Cromley, 2012).

Despite the decline in newly diagnosed cases, approximately 3.4 million people in Nigeria are living with HIV, and thousands of people are still at great risk of infection (UNAIDS, 2012). Concerted efforts must be continued to increase access to ART, educate people on precautions against transmission, and improve living conditions to reduce risk of comorbidities associated with HIV/AIDS (UNAIDS, 2012). Additionally, there is a need to study the factors that promote the spread of this epidemic in the country and the region.

Researchers have explored the behavioral risk factors known to lead to the spread of the infection within a small socio-geographic area (Obidoa & Cromley, 2012). Among the most cited reasons for the spread of HIV/AIDS in sub-Saharan Africa are the large population, high fertility rate, and inability to meet contraceptive needs, which protect against the transmission of sexually transmitted infections and HIV (Lawani, Onyebuchi, & Iyoke, 2014). Because of the high risk of infection, dual contraceptive methods (i.e., the use of both condoms and another effective method) are encouraged among women, whether they are infected with HIV or not. However, a cross-sectional descriptive study of married HIV-positive women in Nigeria showed that most HIV-positive women lacked awareness about dual contraception methods (Lawani et al., 2014). Of the 658 women surveyed, 447 (67.9%) lacked awareness of dual method use, and only 179 (27.2%) practiced it. Respondents cited lack of awareness and nondisclosure of their HIV status as the primary reasons for not using dual methods. The most common form of dual method reported was the combination of condoms and injectable hormonal contraceptives (Lawani et al., 2014). As expected, sexually transmitted infections and unplanned pregnancies were higher among women who did not use dual methods.

The behavior of both men and women towards consistent use of dual contraceptive methods is influenced by their awareness of HIV status and their decision to disclose their conditions to their partner. Despite improvements in treatment, there remains a stigma against HIV/AIDS; this stigma hinders both prevention and treatment (Odimegwu, Adedini, & Ononokpono, 2013). A cross-sectional random study of Nigerians revealed negative public attitudes towards HIV/AIDS-positive people, and this stigma is a strong predictor of voluntary counseling and testing (Odimegwu et al., 2013). As a consequence of this widespread stigma, the likelihood of Nigerians pursuing voluntary counseling and testing is low, which consequently decreases the use of ARTs and the chances of survival (Odimegwu et al., 2013).

Prevalent negative attitudes about HIV/AIDS have serious implications for the epidemic in Nigeria and other countries. The success of national, foreign, and international efforts to address the AIDS pandemic through education, testing, and treatment are contingent upon the de-stigmatization of HIV/AIDS (Odimegwu et al., 2013). Hence, in addition to providing medical assistance and services to people living with HIV/AIDS, efforts must be made to educate the public and humanize HIV/AIDS-positive individuals such that people's perceptions about HIV/AIDS are improved. Improving people's perceptions of HIV/AIDS and those living with the disease is believed to promote voluntary counseling and testing, as well as consistent use of precautions to avoid transmission and infection (Odimegwu et al., 2013). In Nigeria and several other sub-Saharan African countries, scholars and researchers have posited a link between polygamy and HIV/AIDS (Saddiq, Tolhurst, Lalloo, & Theobald, 2010). Despite hypotheses regarding this connection, research conducted to date is inconclusive.

The next section offers a brief discussion of polygamy in the Nigerian context and relates this behavior to vulnerability and resilience to HIV/AIDS.

## Polygamy in Nigeria

### The Structure of Polygamy and Its Criticisms

The structure of polygamy involves one central spouse having multiple partners, which obviously yields two inequalities (Strauss, 2012). The central spouse exerts greater control over the larger family. Normally, the central spouse dominates the family in terms of meeting expectations and roles of other family members. There are multiple forms of polygamy. *Polygyny* occurs when a man marries multiple women, while *polyandry* refers to one woman marrying multiple men (Strauss, 2012). On the other hand, *polyamory* refers to informal sexual relationships among individuals of both sexes that may or may not involve marriage (Strauss, 2012). In some communities, both polygyny and polyandry may be practiced along with less formal sexual relationships; thus, the umbrella term polygamy is adequately used to refer to any and all of these various forms of multiple-partner relationships. While Strauss (2012) asserted that polygamy should be sexually and gender-neutral, in Nigeria, polygamy is only practiced by men in the family. The reason for this singular form of polygamy is that this behavior has long been the culturally and socially accepted norm.

While many scholars claim that polygamy creates gender inequality, there is a lack of sufficient data on this matter. The notion that polygamist communities condone family and spousal abuse is generally a misconception resulting from sexist culture of a particular society (Strauss, 2012). Indeed, both men and women in polygamist societies care for their spouses, children, and the wider family (Strauss, 2012). However, it has

been posited that it is only possible for traditional polygamy to be equal if both spouses can marry other spouses within and outside the family (Strauss, 2012).

**Gender Roles in Polygamy**

Culture is a vital aspect of everyday life of people. In Nigeria, every tribe has its own cultural and ancestral practices. Gender roles, family planning, and family structures vary greatly across tribes. For example, in the Kanuri tribe of northeastern Nigeria, men can marry up to four wives and rear an average of 16 children (Mairiga, Kullima, Bako, & Kolo, 2010). Kanuri women are expected to follow specific traditional family planning rules. These rules include adequate child-spacing, prolonged breastfeeding, and contraception using ornaments, spiritual invocations, and dried herbs (Mairiga et al., 2010). The northern Nigeria is Muslim-dominated, and there is a widespread practice of polygamy because the Islamic code provides for equal treatment and sustenance of all spouses (Ilevbare, 2009).

In Nigeria, the size of a family is considered indicative of wealth (Anyanwu, 2013). Several reasons have been posited for this. First, the more wives a man has, the more political alliances he makes. Second, more wives yield more children and children are considered essential to the household's workforce in generating household income (Anyanwu, 2013). Third, having many wives gives a man an increased sense of sexual gratification. Having multiple wives implies male dominance; whatever sexual needs a man has, he can have those needs met. .Some argue that polygamy provides greater reproductive health for women, who have time to rest after bearing a child because other wives are available to take her place laboring in the fields or tending to the other children.

## Polygamy and HIV/AIDS in Nigeria

Polygamy is an institutionalized norm, not only in sub-Saharan Africa, but also across the world. In some countries, polygamy is legal and allowed under common law. Islam, one of the widely practiced religion in Nigeria, supports the practice of having many partners in a marital union. In the United States, leaders of the Church of Jesus Christ and Latter Day Saints used to teach and practice polygamy or plural marriage from the mid-nineteenth century until 1890 (Hoyt & Patterson, 2011).

Literature has documented that infidelity in polygamy is what promotes the spread of sexually transmitted diseases including HIV/AIDS. Saddiq et al. (2010), in their qualitative study, posited that the practice of polygamy does not make people living in Nigeria vulnerable to HIV/AIDS, rather, it is the social and cultural practices of the society to which the people belong. The practice of polygamy is a manifestation of the social relationships people can negotiate and experience. Polygamy socializes people similarly to the way in which institutions such as religion and education socialize people. Findings from focus groups and in-depth interviews with religious and community leaders and various groups of women and men in the community suggest that the religious institution in Nigeria greatly influences people's perceptions and attitudes about the practice of polygamy and the spread of HIV/AIDS (Saddiq et al., 2010).

The double standards of Nigerian men's extramarital relationships is rooted in the asymmetrical gender roles of the community. It is acceptable for men, but not women, to have more than one sexual partner. This phenomenon influences the spread of the disease because Nigerian women can acquire the disease from their sexual contact with their spouse, who might have acquired the disease from another wife or an extramarital

relationship. The belief that men have greater sexual need and must be satisfied by their women put women at risk of sexually transmitted diseases.

Three themes emerged from Saddiq et al. (2010) study. The first theme is the perception of the relationship between polygamy and promiscuity. Promiscuity is associated with women whose needs—emotional, financial, social, or sexual—had not been met by their polygamous husband. The second theme is the role of religion in the perception and practice of polygamy. Some Muslim and Christian leaders consider the practice of polygamy as one way to fulfill religious obligations. Complications arise when the husband can no longer provide for the needs of his wives and children. Lastly, women who engage in polygamy believe they are in competition with one another to gain the husband's favor. Co-wives sometimes engage in disputes with other wives and resort to looking for other men, which propagates the spread of the disease. This behavior promotes male dominance in Nigerian societies.

Women in Nigeria are expected to obey their husbands, whatever the circumstances may be. During the focus group discussions conducted by Saddiq et al. (2010), women reported recognizing sexual negotiations in their polygamous relationship. The women indicated that attempts at negotiation were perceived as bad behavior. Women who attempt to engage in sexual negotiations are constructed as promiscuous. When they request to have safe sex with dual methods, the husband will not consent. In most cases, the husband will accuse the wife of distrust and abandon her. Wives, out of fear of rejection, dare not question their husband's infidelity. Muslim leaders have stated that sexual negotiations are not prohibited by Islamic law, but husbands perceive the law differently.

Furthermore, a study by Nyathikazi (2013) examined the relationship between HIV/AIDS and polygamy and the belief system and awareness of people when it comes to risk of infection as they practice multiple sex relationship. The study was done through focus group discussions among practicing male polygamists. Nyathikazi (2013) indicated that people practicing multiple sex relationship and polygamy may be at high risk for HIV/AIDS infection. The knowledge of the risk of infection did not prevent the respondents from having sexual relationships with multiple partners. The study posits, among other things, that infidelity not polygamy is the factor that aggravates the spread of the disease. Where the man cannot sexually satisfy his numerous wives, the women go outside the marriage to look for sexual gratification. Again, the issue of gender inequality plays a part in the nature of sexual practices, underscoring the need for further HIV/AIDS education. In this way, different institutions serve as mechanisms to mobilize and train different communities (Nyathikazi, 2013).

HIV/AIDS is a global health problem; although treatment exists, no cure has yet been found. Awusi and Anyanwu (2009) conducted a study to investigate and understand the perceptions and attitudes of pregnant Nigerian women towards HIV/AIDS. Findings suggest that most (91%) of the women are aware of HIV/AIDS and that the disease can be transmitted sexually (95.6%) and through infected blood (57.7%). While these women understand how they can become infected, their knowledge does not extend to prevention and treatment. For example, the women did not know the disease can be transmitted through breast milk (36.8%) and from mother to child (27.5%) through blood, both before and during birth. Fear of the disease was apparent in the study, with 95.6% of these women stating they would not want to stay in the same house as someone

infected by the disease, and 93.3% stating they would not care for a relative with AIDS. From these findings, it can be inferred that poor knowledge or communication about HIV/AIDS status may also affect relationships and social behaviors with other people who are infected by the disease. Having knowledge about the nature of the infection reduces the stigmatizing effect of those surrounding the HIV/AIDS-positive individual.

Sub-Saharan African cultures have basic commonalities. The cultural practice of marriage in Nigeria, as with other African countries, is predominantly polygamous. According to Bowen (2013), there is the interplay between the Universalist side of human rights advocacy and the culture-bound tradition in Ghana when it comes to understanding the nature of polygamy. Bowen examined the traditional polygamous marriage in the context of the legal system in Ghana, West Africa.

## Interventions for the Spread of HIV/AIDS

Efforts to confine the epidemic in Nigeria became a priority of the Nigerian government in 1999, but in 2006, statistics showed that only "10 percent of HIV-infected women and men were receiving antiretroviral therapy and only 7 percent of pregnant women were receiving treatment to reduce the risk of mother-to-child transmission of HIV" (AVERT, 2011). The main transmission routes in Nigeria are heterosexual sex, which accounts for 80–95% of HIV infections (AVERT, 2011). It is culturally accepted for Nigerian men to have more than one wife and to engage in sexual relationships with more than one woman. In African society as a whole and the Nigerian society in particular, having multiple wives or mistresses is a show of wealth and power. According to the Center for Disease Prevention and Control ([CDC] 2012), "multiple sex

partners and/or infection with another sexually transmitted disease, such as syphilis, gonorrhea and chlamydia, increase the risk of an HIV infection" (p. xxx).

Nigeria has the second largest population of people living with the disease worldwide (AVERT, 2014). Up to now, the spread of the disease has been the heaviest burden faced by the government of Nigeria. Even the younger ones in Nigeria are becoming vulnerable now to the spread of the disease. The three main HIV transmission routes in Nigeria were identified as heterosexual sex, blood transfusions, and mother-to-child transmission (AVERT, 2014). At-risk groups include brothel and non-brothel based female sex workers, men-who-have-sex-with-men, and injecting drug users (AVERT, 2014). The Ministry of Health of Nigeria Foundation for AIDS Care, Prevention and Advocacy, established in 2011, has a singular mission: to provide financial and technical support for the reduction of the spread of the disease. As part of its role in the battle against HIV/AIDS, the foundation is involved in provision of treatment and education at the grassroots level of the community through engagement and mobilization (AIDS Healthcare Foundation, 2012).

Sexual abstinence is a realistic intervention being considered by Nigeria to address the spread of HIV/AIDS infection (Aderemi & Pillay, 2013). Young people's increased awareness and knowledge of how the disease is transmitted and how transmission can be prevented may have a positive impact. Condom promotion has encountered religious, social and economic obstacles. Aversion to condom usage seems to be the real challenge for the Nigerian social context in terms of increased support for access to contraceptives to prevent the spread of HIV/AIDS infection (Audu, El-Nafaty, Bako, Melah, Mairiga, & Kullima, 2008; Okulate, Jones, & Olorunda, 2008).

Rather than intervening from a scientific perspective, religious institutions serve to educate men who practice polygamy on the need to observe good behavior, principally on how to treat women (Green, 2011; Saddiq, Tolhurst, Lalloo, & Theobald, 2010). Although women are typically placed in a subordinate position in Nigerian culture, religion and culture are not valid excuses for poor treatment at the hands of men. Nonetheless, the traditions, norms, and practices of society in Nigeria are connected to women's vulnerability for infection (Ostrach & Singer, 2012).

Rural information programs are an important mechanism in the dissemination of quality information. These programs, however, suggest that information is shared equally between both sexes. The culture of violence propagated by the nature of polygamous relationships, including the spread of HIV/AIDS, cannot be overcome with information alone. People wish to do what they have always done. This behavior is indicative of Nigerians' strong attachment to cultural practices (Attah, 2013). Doosuur and Arome (2013) found men are more likely to perceive having contracted HIV/AIDS from women than are women to blame the men for infecting them. It may be possible to change the cultural aspect of this society and hence, improve the well-being of women (Ugwokwe, 2014). Doing so would likely eliminate or at least reduce the harmful practice of polygamy (Ugwokwe, 2014; Ostrach & Singer, 2012).

This change can be achieved with the aid of professional organizations such as the Federation of Female Lawyers in Nigeria, a women's and children's rights organization, and religious institutions (Akoto, 2013). The organizations could share the necessary information with women and educate them on the consequences of cultural practices that put women at risk and how to avoid or at least mitigate those risks. Information can be

passed through various cable formats. Children's libraries could serve as information centers to educate and train the next generation of men and women from an early age on the importance of gender equality and prevention of HIV/AIDS transmission through safe behaviors including monogamous relationship (Ugwoke, 2014). Similar actions conducted in urban settings have raised awareness of HIV/AIDS interventions and enlightened urban dwellers to refrain from multiple sexual partners and polygamy (Ugwoke, 2014).

## Theoretical Foundation

The theoretical foundation of this study is founded on the health belief model (HBM). The HBM is the most commonly used theory in health education and health promotion (Hayden, 2014). It is a psychological model that was developed in the 1950s in order to explain the lack of success of medical screening programs, especially free programs for tuberculosis health screening (Rosenstock, 1974). The HBM focuses on two aspects of health behavior: threat perception and behavioral evaluation. Threat perception with regards to injury prevention is measured by two components: susceptibility to an injury and anticipated severity of the consequences of an injury (Cao, Chen, & Wang, 2014). Individuals differ in their perception of susceptibility to injuries: those with low perceived susceptibility deny the possibility of experiencing injuries, those with high or extreme perceived susceptibility feel constant and real danger for injury, and those in the middle of the range acknowledge a statistical possibility of susceptibility to injury (Cao et al., 2014; Hayden, 2014). The anticipated or perceived severity of the consequences of an injury is a person's belief regarding the effects of an injury on one's state of affairs (Cao et al., 2014; Hayden, 2014).

On the other hand, behavioral evaluation includes two distinct sets of beliefs: the first one is related to barriers to change injury-related risk behaviors and those related to benefits (Cao et al., 2014; Hayden, 2014). The perceived benefits of taking action is a person's opinion or gauge of the value or usefulness of a new behavior in minimizing the risk of injury or risk of developing a disease (Cao et al., 2014; Hayden, 2014). The belief that a new behavior will decrease the probability of developing a disease encourages people to adopt healthier behaviors and lifestyles, including voluntary screening. The perceived barriers to taking healthy action are an individual's evaluation of the obstacles to adopting a new behavior (Cao et al., 2014; Hayden, 2014). These barriers are most significant in determining behavioral change because a person needs to believe that the benefits of adopting a new behavior outweigh the consequences of continuing the old behavior (Hayden, 2014).

These four constructs – perceived susceptibility, perceived severity, perceived benefits of taking action, and barriers to taking action - are modified by other variables such as culture, educational attainment, past experience, motivation, and economic capability (Hayden, 2014). Additionally, the model suggests that the probability to adopt a new behavior or modify an old one is influenced by cues to action. Cues to action are events, people, or things that motivate or inspire people to change their behavior (Hayden, 2014). Common examples of cues include an illness of a friend or family member, news and media reports, mass media campaigns such as those for HIV, advice from respected individuals, and health education programs (Hayden, 2014).

## Summary

Polygamy is widely practiced in Africa, specifically in Nigeria. The practice is culturally and socially embedded in the Nigerian society. Men have the opportunity to have multiple sexual partners, which poses a risk to women's health and the health of women's children. The practice of polygamy creates an unequal relationship in which the husband has the power to control his wives and the wider family.

High-risk sexual behavior such as polygamy facilitates the spread of HIV/AIDS. It is important to be aware of the perceptions of women who have been involved in polygamy regarding the effects of polygamy and the spread of HIV/AIDS. There is a gap in the literature regarding Nigerian women's perspective of polygamy. This study will address that gap by encouraging the voices of Nigerian women who immigrated to the United States from a polygamous marriage.

This study was confined to women who have lived in the rural cities of Nigeria, where polygamy is more traditional, before immigrating to their current residences in the United States. This study will narrow the focus on rural women whose voices have been made silent by a culture that allows the subjugation of women in polygamous marriages. A phenomenological study will be conducted because phenomenological studies explores lived experiences that have been hidden and unheard. Chapter 3 will provide a discussion of the research method, including a description and rationale of the research methodology, design, and approach. Chapter 3 will contain a description of the target population of the study, the methods of soliciting participants, maintaining the confidentiality and protection of the participants. The procedures of the data collection and analysis will also be presented in Chapter 3.

# Chapter 3: Research Method

The purpose of this study was to explore the perspectives on HIV/AIDS held by U.S.-based immigrant Nigerian women who experienced polygamy in rural Nigeria before they immigrated to the United States. The two previous chapters have addressed the history of HIV/AIDS and polygamy and the experiences of American-based Nigerian immigrant women who have been involved in polygamy. The gap in the literature concerns how the women's experiences of polygamy resonate with their opinions regarding the risk of spread of HIV/AIDS in a polygamous relationship. Nigerian immigrant women in the United States are believed to be able to talk more freely than they would have in Nigeria. In this chapter, I discuss the qualitative method used to examine the women's perspectives on the spread of HIV/AIDS through polygamous marriage.

## Research Methodology

The research methodology for this study was phenomenology. Phenomenology is a qualitative method of studying the lived experiences of people in their own words. People express their life experiences as they encountered them. The focus for the researcher is knowing the essence of the experience by using a philosophical lens to view and report the participant's experience. As Nuttall et al. (2011) noted, "Qualitative research contributes to improve existing managerial practice, developing new technique for improving consumer understanding, keeping up to date with developments in practice, and identifying new consumer segments" (p. 153).

A research method reflects the purpose of a study as well as the philosophical perspective. The other major research methodology, quantitative methodology, would not

have been a good fit for this study. Quantitative research is based on a positivist perspective that involves the observation of superficial facts without consideration for underlying factors (Creswell, 2009). Quantitative methods also measure relationships between variables. In contrast, qualitative research is based on a constructivist perspective in which personal experiences are used to interpret reality (Creswell, 2012). This allows the researcher to provide a thick description of a phenomenon and its underlying factors.

It is important to hear the views of women who have had the experience of polygamy and to understand how they perceive the role of polygamy in the spread of HIV/AIDS. The views of these women will help program developers to determine what is needed to develop preventive interventions for women in polygamous relationships so as to reduce the prevalence of HIV/AIDS in Nigeria. Phenomenology offered a suitable structure for the women to express their lived experiences in polygamous relationships.

In this study, my role as the researcher was to be the key instrument of data collection by interacting with people in order to obtain their personal knowledge about their way of life and the phenomenon of concern. Data were reported using in-depth descriptive analysis to convey the lived experiences of the people to the consumers of the information. I set my biases as a researcher aside by following Moustakas's (1994) transcendental phenomenological approach known as *epoche process*. In this approach, the researcher sets aside prior beliefs and knowledge of the phenomenon obtained through literature and observed custom.

## Research Design

*Phenomenological inquiry* is the process of "revealing the essence of experiences in which others can derive knowledge about a unified meaning of an experience" (Moustakas, 1994, p. 84). The experience of polygamy by women who were involved in the tradition in Nigeria before migrating to the United States was explored as it relates to their perception of HIV/AIDS. The research design involved in-depth interviews of 10 women who had married into polygamy in Nigeria before they relocated to America. The interviews were planned for a Saturday, but this plan was hampered by a snowstorm. This necessitated choosing another day at participants' convenience. Another Saturday was chosen because this was a day when the women did not work and were available.

Other methods of qualitative inquiry would not have fit this type of study as much as phenomenology. For example, grounded theory is used when a theory is not available to explain a phenomenon. In order to develop a theory, 20 to 30 interviews are conducted with different categories of people (Creswell, 2012). In this research, the HBM is the model that focuses the study. Ethnography entails the study of culture through prolonged involvement in the culture, which includes being a participant observer in prolonged immersion in the daily activities of people. The participants are more than 20 in number, and the narratives are written in the form of stories (Creswell, 2012). This study did not fit into an ethnographic framework. Narrative is a methodology that involves exploring the lived experience of one or two individuals as told in chronological order by the individual(s) in order to write an autobiography or life history (Creswell, 2012). The participants in this study were more than two in number, and the focus of the study was not their life history but the lived experience of polygamy, which is a phenomenon of

essence in their lives. Case study provides an in-depth analysis of a case or cases within a bounded system (Creswell, 2012). Case study is the exploration of an event or activity by using multiple sources of data such as interviews, observations, documents, and artifacts. This study focused on the shared experience of polygamy and opinions of HIV/AIDS among people who experienced polygamy.

## Participants of the Study

The participants of this study were selected through purposive sampling to fit the purpose of the study. Participants consisted of 10-12 American-based Nigerian women who had the experience of polygamy through marriage when they lived in Nigeria, where polygamy is accepted as the social norm (Ilevbare, 2009; Mairiga et al., 2010). American-based Nigerian immigrant women are believed to be able to talk more freely than they would have in Nigeria, where they are considered second-class citizens. In Nigeria, women are also limited by the authority of their husbands and therefore do not have a voice or choice in matters pertaining to their own lives. Women who did not have the experience of polygamy by marriage were excluded by church leaders from the participant pool for this study. In addition, women whose husbands insisted on participating were excluded so as to get honest responses from the women. The inclusion criteria ensured that participants were women who self-identified as Nigerian immigrants living in the United States as permanent residents, who were aged between 18 and 45, and who had been involved in polygamy in Nigeria.

The Redeemed Christian Church in Manchester, New Hampshire, a church with a large population of Nigerian immigrants, was used as the venue for the interviews with permission from the leaders of the church. Participants were drawn from the members'

list of the church. The recruitment arrangement entailed approaching the leaders of the church first to discuss the study and arrange meeting times and days. The members were then approached by the church leaders, who discussed the study with them. Women who were interested received a written copy of the study process and the informed consent form. Women who were presently married to another husband were encouraged to seek the consent of their husbands to participate, as is customary in Nigerian culture.

## Measures

The interview was semistructured in nature and consisted of open-ended questions. The questionnaire was tested for validity and reliability through focus group discussion with two or three people. This ensured that the questions were easily understandable and that the women were responding accurately. The interview protocol was designed in order to guide and focus the interaction (Patton, 2002). The protocol (see Appendix C) consisted of questions that focused on how the participants perceived HIV/AIDS in a multiple-partner relationship. The purpose of this study was to explore the perception of HIV/AIDS among women from rural Nigeria who were in polygamous relationships before they immigrated to the United States. The immigration status of the women who participated was permanent residency; the church leaders were told to obtain proof of residency from potential participants. This was necessary in order to avoid participants dropping out of the study because of immigration status.

## Research Questions

RQ1: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?

RQ2: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS while in polygamy?

RQ3: How does Nigerian women's perception of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?

## Ethical Protection of Participants

The ethical issues that are associated with using human subjects are the need for informed consent before participation and the need to unleash no harm on participants as a result of their participation. The participants in this study were adult women who participated voluntarily and without fear of prejudice, as stated by the informed consent form that was given to them to sign before the start of the study. The informed consent form stipulated the terms of the study, including the freedom of the participants to pull out of the study if they felt threatened. Although some of the research questions were likely to be uncomfortable because they related to recalling a lived experience, privacy and confidentiality were assured. Participants were free to not answer the questions or to drop out of the study completely. There was a debriefing session at the end of the study to share the results of the study with participants.

## Procedure

The following procedure was used to identify and recruit participants.

- Had a telephone conversation with the leader of the Redeemed Christian Church in Manchester, New Hampshire, to discuss the study.
- Organized a meeting with the leader to present the study and to post notices on the church information board and e-mail listserv for prospective participants.

- Presented information about the study to prospective participants and recruited participants.
- Gave informed consent form to participants and assured privacy and confidentiality.
- Conducted interviews.
- Conducted data analysis.

## Data Collection

The interview lasted 45-60 minutes for each participant. The age range of the participants was 18-45. The interview was conducted in the church. This location was suitable for privacy and confidentiality. There was no interference from significant others or husbands. Data were collected through in-depth interviews. Notes were taken, as the women decided not to be recorded. Questions focused on the participants' understanding of HIV/AIDS and the role that polygamy plays in promoting its spread. Data were organized in computer files, and hard copies of files were kept as backup in a locked cabinet. Access to the computer containing the data was controlled by a password.

## Data Analysis

The data from each participant were read thoroughly to gain an understanding of the information that the participants were conveying. This stage of the process of data analysis is very important because it is the first step in understanding the meaning of the experience of the participants (Giorgi & Giorgi, 2003; Moustakas, 1994). The data were analyzed and coded in order to find important concepts, categories, and themes with similar features. As new concepts emerged, they were coded and grouped into categories. Similarly, categories with similar meanings were brought together into a theme. This step

allowed for extraction of statements to understand how the women experienced polygamy and their opinions concerning how polygamy promotes the spread of HIV/AIDS. This is the step in which reduction and elimination occurred to give room for statements that were useful in understanding the experience. For this study, NVivo 10 software was used to develop an iterative data analysis of the emerging themes. After reaching data saturation, the coding process was used to categorize information, examine properties and reduce the information into meaningful data (Creswell, 2009).

## Data Verification

Reliability and validity were assured through focus group discussion with two women. To ensure consistency, coding credibility, and formation and interpretation, NVivo 10.0 software was used for data analysis.

## Summary

Chapter 3 has contained an explanation of the research methodology. I have stated in detail the reason for choosing a qualitative methodology over a quantitative methodology for this research. In addition, I have explained why I prefer the qualitative method of phenomenology over other qualitative methods. Ten Nigerian immigrant women who were involved in polygamous relationships in Nigeria were chosen by purposive sampling. In-depth interviews were conducted after they gave their informed consent and received assurance of confidentiality. To ensure consistency, NVivo 10.0 software was used for data analysis. Chapter 3 has also presented the geographical location of the study and how participants were informed and protected. In addition, Chapter 3 has contained a discussion of the role of the facilitator.

Chapter 4 addresses the analysis and results of data collected. Chapter 5 focuses on the results and provides recommendations for future research.

# Chapter 4: Results

The purpose of this study was to explore perspectives on HIV/AIDS held by American-based immigrant Nigerian women who experienced polygamy in rural Nigeria before they immigrated to the United States. The theoretical foundation used was the health belief model (HBM), which is one of the most widely used theoretical and conceptual models for health behaviors (Hayden, 2014). Chapter 4 presents a discussion of my findings from in-depth interviews conducted with immigrant Nigerian women, in which they discussed their lived experiences of polygamy and their understanding of the role that polygamy plays in promoting HIV/AIDS. The study design was phenomenology. A total of 10 women within the age range of 18-45 participated in the study, 50% of whom were in their 40s. Thirty percent were within the age range of 34-39, while 20% were 18-30 years of age. According to Creswell (2013), five to 25 participants are acceptable in a phenomenological study. Additionally, this chapter reviews the settings that influenced the study, the demographics of participants, the method of data collection and analysis, data trustworthiness, and the study's results. An interpretation of these findings is offered in Chapter 5.

## Setting

All interviews were conducted in a private room at the Redeemed Christian Church in Manchester, New Hampshire, which supported the study. Many Nigerian immigrants worship on Sundays and Tuesdays at this church. It is in a nonresidential location, free from noise or any kind of disturbance. According to the church's leader and participants, the church had been used in the past for other research studies. Participants

also reported a high level of convenience when using the church as the site of the research study.

The interviews required privacy because of the subject of discussion. Except when men want to bolster their ego in the midst of their friends, sex is a subject that is not generally discussed in public among Africans (Namisi et al., 2009). It was therefore important to conduct the interviews one on one in a private setting. Additionally, time was allotted for each participant to come in without seeing or disturbing other participants.

## Study Participants' Demographics

The participants were selected from the Redeemed Christian Church in Manchester, New Hampshire, a Nigerian immigrant church. Their educational status ranged from high school to college (associate degree, Licensed Practical Nurse). When asked to indicate the length of their polygamous marriage, they reported between 1 year and 21 years. One participant declared being formerly married but single because, according to her, she was done with her polygamous marriage in Nigeria and in a relationship with a single man.

The participants' ages at marriage were in the range of 16 to 21. Their husbands' ages at marriage were between 21 and 55. While in Nigeria, some of their husbands were traders, one was a school teacher, and others were rich business men. Two of the women were assisting their husbands in their trades, one was a school teacher, one was a hairdresser, one was a nurse assistant, one was a school clerk, and four were housewives. The participants shared the same ethnic background, language and culture. All of them spoke Yoruba, which was their ethnic language, and English. All reported having lived in

rural Nigeria under a polygamous marriage with the man being the head and dictator to four to six wives of different ages. They added that there were numerous children to these marriages; however, according to tradition, other women's children are not counted. Additionally, all reported ending participation in polygamy upon immigration to the United States. All participants voluntarily agreed to participate in the study, were made aware of the study's ethical protocols, and signed the informed consent form. Privacy and confidentiality were further assured by informing participants that interviews would be conducted one after the other and after the previous participant had left. They were also assured that their identity would not appear on any of the documents. In addition, they were assured that the interview transcripts would be kept in a private file in a locked cabinet in my office and destroyed after 5 years.

The selection criteria for participants were as follows: (a) female, within the age range of 18 to 45; (b) previously involved in a polygamous relationship as one of the wives; (c) previously lived in rural Nigeria, where polygamy is prevalent; (d) permanent resident or naturalized citizen of the United States; (e) lived in the United States for at least 1 year; and (f) allowed to participate in the study by their present husband or significant other without any form of intrusion by the husband or significant other.

## Analysis of Demographic Questions

Table 1 represents a summary of the answers to the first 10 questions, which were demographic questions from the interview questionnaire. Participants answered demographic questions on the form before the interview and brought them with their informed consent forms on the day of the interview. I confirmed all information with

them at the start of the interview through their driver's licenses and other forms of photo identification such as school and work identity cards.

Table 1

*Participants Demographics*

| *Code (pseudonym)* | *Age* | *Years as immigrant in the U.S.* | *Marital status* | *Total education* | *Occupation in U.S.* | *Years married in Nigeria* | *Years married in the U.S.* |
|---|---|---|---|---|---|---|---|
| ***P1 (Aduke)*** | ***42*** | ***10*** | ***Married*** | ***College*** | ***Health*** | ***14*** | ***8*** |
| ***P2 (Alake)*** | ***40*** | ***9*** | ***Married*** | ***College*** | ***Health*** | ***13*** | ***6*** |
| ***P3 (Ajoke)*** | ***39*** | ***6*** | ***Married*** | ***College*** | ***Health*** | ***12*** | ***5*** |
| ***P4 (Ada)*** | ***39*** | ***6*** | ***Married*** | ***College*** | ***Health*** | ***12*** | ***5*** |
| ***P5 (Aminat)*** | ***41*** | ***7*** | ***Married*** | ***College*** | ***Health*** | ***13*** | ***6*** |
| ***P6 (Amoke)*** | ***18*** | ***1*** | ***Formerly married; in relationship*** | ***High school*** | ***Unemployed*** | ***1*** | ***0*** |
| ***P7 (Adanma)*** | ***45*** | ***5*** | ***Widow*** | ***High school*** | ***Business*** | ***Over 20*** | ***0*** |
| ***P8 (Arike)*** | ***30*** | ***4*** | ***Married*** | ***College*** | ***Health*** | ***6*** | ***3*** |
| ***P9 (Agbeke)*** | ***34*** | ***3*** | ***Married*** | ***College*** | ***Health*** | ***10*** | ***1*** |
| ***P10 (Abike)*** | ***45*** | ***4*** | ***Married*** | ***High school*** | ***Business*** | ***Over 20*** | ***2*** |

*Note. Years married in Nigeria* refers to years in a polygamous marriage. Only one participant had more than one marriage (her first husband died of HIV/AIDS). P6 is listed as formerly married, for she left her first husband (whom she married at age 16 when he was 55) after 1 year when she won the American visa lottery and self-identifies as single in a new relationship.

Participant 1 (Aduke) lived in the rural town of Ajegunle, Lagos, in Nigeria, where there was a mix of educated and uneducated people and many of the older people were businesspeople. She got married in Nigeria at the age of 18 years to a man who was 24 years old. It was her first marriage. In Nigeria, she had a high school education. Her occupation in Nigeria was hairdressing; her husband taught in the local primary school. Her husband had three other wives who were younger than her. She was the first wife.

The last wife was 19 years old when her husband married her. Aduke had four children with her husband in Nigeria. All of her children are with her in the United States.

Participant 2 (Alake) lived in in the rural town of Jakana, Borno state, in Nigeria, where the majority of the people were illiterate. Her marriage in Nigeria began when she was 18 and her husband was 35 years old. Her husband had no education, while she had a high school diploma. Throughout her marriage in polygamy, she was a housewife while her husband was engaged in business. Her husband had six other wives who were younger than her. She was the third wife and had four children with her husband. One of her children is in United Kingdom. The remaining three are with her in the United States.

Participant 3 (Ajoke) lived in the rural town of Mgbaukwu, which she described as a village in Onitsha, Nigeria. She got married into polygamy as the second wife at the age of 21 to her husband, who was 27 and a trader like herself. They both had a high school education. Ajoke had three children in polygamy before relocating to the United States with her children. Ajoke's husband in Nigeria had two other wives whose ages she did not know.

Participant 4 (Ada) lived in the rural town of Apata-pete, a suburb of Ibadan in Nigeria where the men are the ones who usually go to high school. The women go to primary school and then take up a trade. According to her, she happens to be one of the few girls who went to high school. She married her husband in Nigeria when she was 21 years old and he was 23 years old and teaching at the local primary school. It was her first marriage, and she was the first wife. They both had a high school education. While the husband was teaching, she was a housewife. Her husband had three other wives who

were younger than her. Ada had four children with her husband in Nigeria. All four children live in Nigeria.

Participant 5 (Aminat) lived in the rural town of Igboho near Shaki, Nigeria, a small town where all of the residents know everyone by name. She married her husband in Nigeria when they were both 21. It was her first marriage, and she was the first wife. Both of them had a high school education. While she was a ward maid (nurse assistant) in a hospital, her husband was a hospital clerk at the same hospital. There were two other wives in the marriage, but one died. Aminat had four children with her husband in Nigeria. Two of her children reside in Nigeria, and two are in the United States.

Participant 6 (Amoke) lived in the rural town of Sagbe, a suburb of Ibadan, Nigeria, where many of the men were semi-illiterate rich businessmen. The women were mostly traders or housewives. She was married to her husband in Nigeria when she was 16 and he was 55 years old. She did not finish high school in Nigeria, and her husband was illiterate. She was a housewife while her husband was a very rich businessman. Her marriage to her husband in Nigeria was her first, and she was the last wife. She had no children and had four cowives who were all older than her.

Participant 7 (Adanma) lived in the rural town of Beere, Ibadan, in Nigeria, which is a village inside a city. Many of the people are illiterate, and some people must go out of the village to go to school and work. She is a businesswoman who did not complete a high school education in Nigeria but got her GED in the United States. Her husband in Nigeria had a primary school education and started a lucrative transport business while she was a housewife. She was 19 years of age and her husband was 21 when they got married. She was the first wife and had one child. She had five cowives who were all

younger than her. Adanma's husband died of AIDS. She lives with her child in the United States.

Participant 8 (Arike) lived in the rural town of Omi-Adio near Ibadan, Nigeria, where there was a mix of educated and uneducated people. She was married to her husband in Nigeria when she was 20 years old and he was 33. While in Nigeria, she had a high school education and worked as a school clerk while her husband was a teacher. She had three cowives who had four children each. She was the third wife. She was one of the two participants who mentioned the number of children that her cowives had. Others declined because, according to their cultural belief, no one counts other people's children. Arike had no children with her husband in Nigeria, who died of AIDS.

Participant 9 (Agbeke) lived in the rural town of Obanikoro, Abeokuta, in Nigeria, where many of the people go into the city to trade and the children go to the city for school after primary school. She was married to her husband in Nigeria at the age of 21. Her husband, who was a trader like her, was also 21. Both of them had a high school education. It was her first marriage, and she had three children in the marriage. She had two cowives who had three children each. She was the first wife. All of her children are in Nigeria. She was the other participant who mentioned the number of children that her cowives had in polygamy.

Participant 10 (Abike) lived in the rural town of Iragbiji, Osun state, in Nigeria, where many of the older people were illiterate and the popular occupation was trading. She was married to her husband in Nigeria when she was 20 years old and he was 40. It was her first marriage. While she went to a teacher training school and became a teacher, her husband had a high school diploma and became a successful businessman. She was

the second wife, with two cowives. She had six children with her husband in Nigeria. Three of her children are in the United States, and one lives in Canada. The rest are in Nigeria with her family.

## Data Collection, Analysis, and Storage

In this study, my role as researcher was to be the key instrument of data collection by interacting with participants in in-depth, face-to-face interviews, which elicited participants' personal knowledge about their tradition and the phenomenon of concern. I overcame my biases as a researcher by following Moustakas's (1994) transcendental phenomenological approach, known as *epoche process*, which involves setting aside prior beliefs and knowledge of the phenomenon obtained through literature and observed custom.

### The Interview Process

After obtaining approval from Walden's University Institutional Review Board, I met with the leader of the Redeemed Christian Church to discuss formally how to inform church members about the study. The leader made an announcement concerning the study during one of the church's Sunday services and posted the recruitment flyer on the notice board. Those interested were advised to contact me by phone or in person. Within the week, eight people signed up. In 2 weeks, 14 people signed up for the study. I strictly adhered to the inclusion criteria. Of the 14 people who signed up, 10 participants fell within the inclusion criteria. Upon signing the informed consent form, participants were assigned pseudonyms to protect their identity and ensure confidentiality (see Table 1).

Prior to conducting the in-depth interviews, I conducted a focus group interview with two women who were separate from the study participants but similarly met the

inclusion criteria. Through the focus group, I tested and positively established the reliability and validity of the interview protocol. The test participants understood the questions, gave clear answers, and responded in a way that demonstrated their understanding of the concepts at hand. Their feedback confirmed that the questions were appropriate and unambiguous. Two questions on demographics were merged. There was no need for further revision of the research questions.

All participants agreed to be interviewed in the church hall on a Saturday. This schedule was hampered by a snowstorm; therefore, participants chose different dates that were convenient for them. Each participant was given a time slot to appear between 9 a.m. and 6 p.m. The individual in-depth, semistructured interviews took approximately 45-60 minutes for each participant. As all participants refused to be audio recorded, my method of note taking in some cases extended the natural time of the interview. The semistructured interview format allowed for a relaxed atmosphere where the women felt free to express themselves, trusting that I would maintain their privacy.

After explaining the purpose of the study again at the beginning of the interview, I collected data using open-ended questions, as approved by my dissertation committee (see Appendix C). All participants provided valuable insights into their lived experience of polygamy and their perception of HIV/AIDS. Throughout, I discovered that the duration of interviews and the number of questions varied from one participant to the next. This was in keeping with the methodology of phenomenology, which is designed "to understand the phenomena in their own terms—to provide a description of human experience as it is experienced by the person herself" (Bentz & Shapiro, 1998, p. 96).

After each interview, I read the participants' answers back to them for validation (i.e., to confirm whether what they said was what they wanted to say). If their feedback revealed any missing information, I added the information immediately. Siegel (2006) suggested that a method of member validation is important to ensure validity. Participants were also allowed to add information that was relevant to the study outside of the interview questions. I kept a journal of my reflections after each participant's interview session.

The variations in data collection from the plan detailed in Chapter 3 were participants' refusal of audio recording and the time allotted for each interview. Participants refused mainly because such recordings that had been made among their members had not resulted in desirable outcomes in the past. As much as I tried to convince them that their data would be protected, all participants maintained their refusal. I also observed that participants were wary of recordings of any type. The time allotted for each interview was extended so as to get to the depth of participants' feelings.

**Data Analysis**

Data from each participant were entered into Word documents on my computer, which is password protected for security. Each document was differentiated by the code and pseudonyms used to mask each participant's identity. In order to attain closeness to data and thorough data analysis and management, I used both digital and manual methods of data coding and analysis. According to Bazeley and Jackson (2013), researchers need both closeness and distance from data; closeness for familiarity, and distance for abstraction and synthesis. They argued that this is the reason that qualitative software was designed. The closeness provided through manual methods is assisted by software

through “enlarged and improved screen display, improved management of and access to multiple sources and types of data, rapid retrieval of coded text, and easy ability to view retrieved segments of text in their original context” (p. 7).

I printed out each transcript after the interviews were entered. As soon as possible, I read the transcripts twice and made notes. The first step in data analysis involves reading each transcript in its entirety to gain a general understanding of what the data provide (Giorgi & Giorgi, 2003; Moustakas, 1994). To be close to the data as much as possible, I read the transcripts again line by line and labeled relevant words and phrases. I circled key words, phrases, and statements in order hear the voices of participants. I reduced and eliminated text by crossing off repetition and bringing similar phrases together to form themes addressing the research questions. In addition, I uploaded the Word documents into QSR NVivo 10, a qualitative data software program, for coding, text retrieval, data organization, and data management in general. NVivo facilitated the process of analyzing, sorting, and storing the data. The software identified emergent themes and trends, which I compared for similarity with the themes earlier identified through manual coding. Through these experiences, I have discovered that digital data analysis ensures a more complete set of data and rigorous analysis.

Additionally, I reviewed data according to Hycner’s (1985) method for analyzing phenomenological studies, which includes content analysis. I reviewed transcripts for themes including knowledge of HIV/AIDS while in polygamy, perception of risk for HIV/AIDS, and effects of perception of risk on sexual behavior. I coded texts into emergent ideas, and grouped words with similar nature into themes, to form what Hycner (1985) referred to as “units of meaning.” I identified themes from significant statements

and grouped them into categories. I ranked the categories were in descending order of numerical frequency. I combined the major themes that I identified with the ideas and opinions of participants, as extracted from interview transcripts. I saved the reports produced by NVivo on my computer to aid in data analysis.

### Data Storage

In terms of data storage, I kept all printed data in a private envelope. I locked printed copies of demographics, transcripts, and data analysis in a private file cabinet in my office. Five years after the completion of this study (the minimum storage time for data by Walden University), data will be disposed of by crosscut shredders (for notes), and relevant computer files will be wiped clean by overwriting software.

## Findings

### Research Questions

Three research questions formed the basis to analyze the findings of this study. The interview questions were designed to answer the three research questions. I summarized the findings in Table 2 with a detailed description.

Nine of the interview questions focused on the cultural background of polygamous marriage as experienced by the women who are the participants of the study. Participants formed a cultural schema of polygamy through their experiences in their cultural background. The cultural schema formed the basis for the link between polygamy and HIV/AIDS.

**Research Question 1 (RQ1).** Research Question 1 asked: "How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?" Six related themes emerged from the interview data: (1)

"killer disease," (2) sexual transmission, (3) discrimination against people with HIV/AIDS, (4) rural polygamy, (5) husband as provider, (6) traditional medicine.

Table 2

*Research Questions and Findings*

| ***Research questions (RQ)*** | ***Interview questions that answered the research question*** | ***Themes that emerged*** |
|---|---|---|
| ***RQ1: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?*** | ***Please tell me what you knew about HIV/AIDS when you were practicing polygamy.*** | ***Killer disease, sexual transmission, discrimination against people with HIV/AIDS, rural polygamy, husband as provider, traditional medicine.*** |
| ***RQ2: How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS?*** | ***What is your opinion of polygamy and HIV/AIDS? How did you perceive your risk for HIV/AIDS when you were in polygamy?*** | ***Polygamy poses a risk for HIV/AIDS, male dominance, quality of family unit, marriage dynamics, women are accustomed to polygamy, men are polygamous by nature, marginalization of women, fear of rejection by the husband.*** |
| ***RQ3: How does Nigerian women's perception of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?*** | ***How did your knowledge of HIV/AIDS affect sexual relationship with your husband when you were in polygamy? How did you cope living in*** | ***No use of protection, fear of HIV/AIDS, plan for sex, be the obedient wife, coping skills, escape to a new life.*** |

***polygamy?***

***Killer disease.*** All participants responded that they were well aware that HIV/AIDS is a "killer disease." This term was used by all of them. When I probed further how the term emerged, each responded "through the TV and radio." They stated that the mass media were using advertisements in the form of drama, poetry, and songs to inform people about HIV/AIDS. Aduke stated that she did not take HIV/AIDS seriously until she saw people grow very sick and die from it. She claimed that people were dying so much of HIV/AIDS that it became a song in the village where she lived. Alake said she had a friend who died of it alongside her second child and husband:

> When my friend had the first child, she was fine, but the second child was a different story. The child started feeling sick all the time. They thought it was sickle cell. When they took him to the hospital they discovered he had HIV. Then they tested all the other members of the family and discovered that it was only the first child that was negative. The husband was a bus driver who was going on tour for days. Who knows which of them had been having extramarital affairs?

All other participants claimed that they either saw or heard about many people dying of HIV/AIDS. Adanma stated, "At first we thought it was a disease of the city people because we were hearing about people dying of it in the city. Later, we started seeing people around us in the village dying of AIDS." She said hospital officials in the big cities were reporting HIV/AIDS as a "killer disease" anytime they gave news of death to a family.

***Sexual transmission.*** All participants stated that at the time they were practicing polygamy, they thought that the only means of transmission was by sex. Agbeke said "we heard if you have sex with a carrier you will get infected and die soon." Abike stated "once you have sex with a prostitute you catch it and as a man with many wives you get home and spread it to your wives". Participants believed that prostitution was one of the means by which HIV/AIDS is transmitted sexually. In response, according to Ajoke, women attempted to reduce the amount of extramarital sex happening in their marriage: "I and other wives would fight our husband's mistresses and all the prostitutes around. We were doing that without our husband's knowledge." When I asked how they were identifying and fighting the prostitutes, she responded "we usually watch our husband secretly whenever he goes out and if we see him often with any lady we will know something is going on." She stated further that they would go to prostitutes to warn them to leave their husbands alone but if they do not stop they fought them. She stated "young boys in the area also help us to fight them. By that, the prostitutes were running away from our area and the mistresses were getting married." Other participants also spoke about how prostitution declined because the wives were fighting prostitutes out of fear of HIV/AIDS. According to Amoke "the prostitute business was not moving anymore in the village because the wives were fighting them". Aminat indicated that she was always telling her children not to have sex because she feared they would catch HIV. Adanma responded that her fear was about her only child, who was "growing into a beautiful woman": "I was always watching out for her. I didn't want the boys to come near her at all." Amoke said her brother died of AIDS: "We never knew if he was having sex, but we suspected he was. How else could he have got it? That was the question then, but now I

know better." When I asked Amoke to clarify how she knows better, she explained that now she is surrounded by nurses who provide proper health education.

***Discrimination against people with HIV/AIDS.*** All participants responded that people with HIV/AIDS were treated as outcasts. Alake stated "nobody would eat, play or work with them except their family members and their traditional healers that they go to when the hospitals reject them." Agbeke said "they were not giving HIV infected people jobs and housing. Not even sitting with them. Their families are the ones who take care of them to the point of paying traditional healers for them." Aminat stated "hospital workers don't accept them. They said they cannot cure them and they were afraid of catching the disease too." According to participants, hospitals in the village do not treat people with HIV/AIDS unlike the hospitals in the big cities. They declared that people who cannot afford to go to the big cities resort to traditional medicine. When I asked if the traditional medicines cured HIV/AIDS, participants responded that the HIV infected people who use traditional medicines eventually died within a short period of their diagnosis. According to Ada, discrimination is the reason HIV/AIDS has spread so much in Nigeria. She stated, "People were not being sincere about their HIV status for fear of discrimination. Who doesn't want to live a normal life like having a job, wives, and children?" Arike added that her brother committed suicide because of fear of discrimination when he discovered that he had HIV. She said she is grateful to God that he was single, although other members of the family would have preferred that he had a child to live on after him.

***Rural polygamy.*** Participants talked about the reason polygamy is more common in the rural communities despite the widespread awareness of HIV/AIDS as a killer

disease. They attributed polygamy in the rural communities to lack of education and civilization. According to Adanma:

> People are not well educated and civilized in the village like in the city. The city people don't usually marry many wives because they live like the Western people, although if they want they can do it. Nobody will question them. Every African girl knows that polygamy can happen in her marriage at any time.

According to participants, in the rural areas, women are not allowed to remain unmarried into their mid-20s and 30s because they wished to get advanced education and career. Aduke stated:

> such women don't stay in the village because no man will want to marry them. They will be too civilized for the husband to handle. Except if they get a man who has advanced education like themselves which is rare in the village, such women will stay unmarried for their lives and that cannot happen in the village. They will be labelled as prostitutes and other women will be fighting them away from their husbands. It will be a shame to their parents.

***Husband as provider.*** Participants referred to the ability of the man to provide for his family as a factor that overrides their knowledge of HIV/AIDS as a deadly disease. They described polygamy as the cultural norm in rural Nigerian marriage. Participants referred to women in polygamy as totally dependent on their husbands for sustenance. This, they stated, is the reason Nigerian women usually marry men who are rich enough to take care of them. Participants declared that in a situation where the husband allows the wife to work, all money earned belong to the husband. According to participants, men do not allow their wives to work so they can control their wives. All of

them pointed out in their responses that the belief of the people is when men provide for their wives and children's needs, it shows that they are real men.

***Traditional medicine.*** In order to understand what treatments might be sought by people who are HIV positive, and to confirm their perception of HIV/AIDS, participants offered insight into the roles of traditional healers who are also called witch doctors who treat HIV/AIDS in their community. According to participants, traditional healers are respected men in the community who use herbs to cure illnesses. People hold a strong belief for their herbs because they are more familiar with the contents of the herbs than western medicine. All the participants who have had HIV infected people in their family said they took their people to traditional healers because they believe their medication is cheaper and the herbalists are easily accessible. Concerning the efficacy of the herbs, Ada responded "people go to them when they are rejected in the hospitals but the people die eventually." Aduke offered more insight when she stated:

> Traditional healers are men who are well known in the village as herbalists. They deal in herbs to cure diseases and some of them make claims of curing all diseases. People in the village go to them more than they go to the hospital because hospital is more expensive. Many people claim the herbs work for them and yes, we use them when we are pregnant and for delivery.

**Research Question (RQ2).** Research Question 2 asked: "How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS?" Eight related themes emerged from the data: (1) polygamy poses a risk for HIV/AIDS, (2) male dominance, (3) quality of family unit, (4) marriage

dynamics, (5) women are accustomed to polygamy, (6) men are polygamous by nature, (7) the marginalization of women, and (8) fear of rejection by the husband.

***Polygamy poses a risk for HIV/AIDS.*** All participants believed that polygamy is one of the cultural behaviors responsible for the spread of HIV/AIDS. They all reasoned alike and admitted that a man cannot sexually satisfy all of his wives. Some participants (4 out of 10) said this in turn results in the women secretly seeking satisfaction outside the family. According to these participants, though infidelity by women is not allowed, young women who cannot get sexual satisfaction from their husbands have secret boyfriends with whom they satisfy themselves. According to them, this relationship is arranged by the wife, who looks for a young man in the community and ask him to be her boyfriend. They stated further that the wives give gifts and money to their boyfriends to keep them quiet because if their husbands or his relatives get to know about it, their marriage would be over. The secret, they stated, would be kept between the boyfriend and the wife. According to Alake "many of the wives go outside for satisfaction and bring HIV with them. The husband will have sex with her and transfer it to other wives." Amoke stated that she had a boyfriend outside her marriage because her husband was too old to satisfy her sexually. According to Ajoke, "The man outside the marriage with whom the woman satisfies her sexual urges surely must be promiscuous himself. He is therefore a carrier of STDs." This was contradicted by Aduke, who stated:

> I knew I was at risk, but women are usually faithful in marriage because it is against the culture for a married woman to be seen with another man, but the man is the one who brings HIV by sleeping with different women. There must have been a sexual relationship between them before he decided to marry her. Trust

> me—polygamists go about sampling women in bed before marrying the most sexually active one. By so doing they acquire and spread HIV.

Abike's interview provided yet another dimension to the issue, supporting Ajoke's view that women seek sexual satisfaction outside marriage:

> Younger wives usually have sex with older children of their husbands if their husbands are too old to sexually satisfy them. They look for the one who looks very much like the husband so that if they get pregnant by accident, the child will look like their husband and there will be no suspicion.

Though participants were divided in their opinion of who is more faithful in marriage, all participants believe that extramarital affairs actually occur in polygamy and they are precursors to HIV/AIDS. Only one participant, Amoke, admitted indulging in extra-marital affairs with her boyfriend in high school whom she would have married if her marriage to her polygamous husband had not been arranged. They all admitted that if sexual immorality is committed by a wife, it must have been lack of satisfaction by the man. They stated, however, that women are not allowed by tradition to have extra-marital affairs.

Apart from Amoke who stated that her co-wives liked her and she liked them too, participants did not have a good relationship with co-wives because there is suspicion of extra marital affairs and there is competition among wives to court the husband's favor. According to participants, the first wife has the most power by tradition but the favorite wife of the husband assumes the most power. All of them admitted that they knew they were at risk of contracting HIV/AIDS. All of them also stated that the men are aware of the risk of HIV but they consider their ego to be more important.

***Male dominance.*** The general consensus of participants was that women are subject to men in marriage. According to participants, the cultural tradition is for women to have no choice in anything concerning their lives including decisions regarding the terms of sexual intimacy. In their responses, each of them displayed a general feeling of helplessness associated with HIV/AIDS and the polygamous life style. All participants were well aware of their exposure to health issues but displayed a feeling of surrender to polygamy. Ada stated, "Polygamy is terrible. What can we do? It is the culture that we were born into and we women have been taught to accept that our husband will marry more than one wife." According to participants, parents teach their children from childhood about the roles of husband and wife. The role of the husband is to be the decision maker and controller of the home while the woman is to be submissive to him and take care of him and the children. Aduke commented about her husband, "He was the bread winner and the head of the family. He was also the decision maker and we had to obey him whether his decision was good or bad". Adanma reflected, "He was the head of the house, decision maker, and everybody feared him. He was the one responsible for providing the money that we all spent". Alake recalled, "He was the bread winner and he was doing that very well. He always boasted that he is a superman because he was feeding many people in his house". This perception was true even for women who were making their own money. They all expressed a feeling of security when their men have money.

***Quality of family unit.*** Participants stated that despite their perception of risk of contracting HIV/AIDS while in polygamy, the quality of family unit in polygamy undermines their perception. According to participants, all the members of the family live

in the same house and eat together. This, they stated, allow their children to be in harmony. Though children side with their mothers during quarrels, such quarrels are quickly settled by the older children so that the home can be at peace. Participants describe the wives' quarrels as mostly verbal and emanating from issues such as money, competition, other wives' children and space. Participants believe that one of the struggles of polygamy is space. According to Ada "the children like it [polygamy] because they have many siblings to play with. The wives don't like it [polygamy] because they always fight over everything like other wives children, money, space etc." Aduke described the struggles of polygamy by saying:

> We all had our different rooms. Each wife and her children live in one room separate from the husband. We all share same living room and eat together. In our house we had 2 bathrooms and 1 kitchen. The only struggle we have with the bathrooms is when both are occupied and someone needs to go out urgently, he will have to wait and call on the person inside the bathroom to be quick. Anyone who didn't want to be delayed will have to wake up earlier than other people to use the bathroom. Children of multiple wives get along or quarrel depending on the rules of the house and how properly the husband handles the affairs of the home. In my home our children were good with one another until we their mothers start to fight. They take sides but after the fight they make peace with one another first and come together to settle their mothers.

According to participants, this sense of harmony enjoyed by their children in polygamy and the way quarrels among wives are settled by older children make

polygamy interesting. They reported that wives do not consider HIV/AIDS in this type of situation.

***Marriage dynamics.*** The dynamics of marriage is a topic that participants described in detail. According to them, marriage is a social institution binding different families together in a way that does not allow for anyone to perceive the effects of HIV/AIDS as they go into polygamy. All of them gave an insight into how marriage is constituted and what occurs after the marriage. Describing the culture of marriage in details, Ada stated:

> It is either through a man meeting a girl and asking her to marry him and the parents will be notified or parents will get together and arrange for their children to meet. In both ways the man has to pay a bride price before the girl can marry him. The man doesn't need to inform his other wives and children before marrying a new wife and everybody knows that. The wife is married to the man forever, no divorce except if the woman has extra-marital affairs. He will send her back to her parents and curse her. No man will marry her again. This is very rare. Men are the ones who can have extra-marital affairs. Women are not allowed to.

Adanma also stated:

> When a woman finish school from 16 years upwards, men will be asking her out. They can go directly to her or go through her parents or from parents to parents. The parents of the man bring gifts to the parents of the girl. The man also give gifts to the girl and take her out. The parents fix the date for marriage and the girl becomes a wife after the man pays her bride price or dowry and take her home. If she has children she will stay married to the man forever. If no children she can

> be sent out or abandoned and replaced with another new wife. If all her children are girls, she and her girls will not inherit anything from the man when he dies.

***Women are accustomed to polygamy.*** All participants believed that polygamy is a marriage system with which women are familiar. According to Aduke, "It is the system. It is not possible to stop the men. If anyone tries that, they are just promoting extramarital affairs." Alake explained that girls are taught from childhood to expect that they will not be the only wife in their marriage. All participants admitted that their parents lectured them about the roles of husband and wife in polygamy. According to Ajoke, some women look forward to it, "especially when they start to bear children, knowing that their husbands will definitely need to satisfy himself." Ada declared that she had witnessed a man marry two wives at a time without any of the wives complaining. According to her, the marriage was well celebrated. She said at that time she felt it was the normal thing but now it feels disgusting to her because it is like treating a woman as a property. Aminat said she received a thorough lesson on how to have a good relationship with her cowives. She stated further:

> Any woman who thinks her husband is not seeing another woman is deceiving herself. In fact, some women even prefer to choose the wife for their husbands so that the husband will not go and bring a woman who will be fighting them. I knew I was at risk of contracting HIV, but I was lucky that my husband allowed me to choose wives for him.

Amoke stated, "When I married a man as old as my father, I expected I would meet some wives there and I knew I was not going to be the last one." Adanma, Arike, and Abike said that it is a "system thing" to which women have become accustomed. Agbeke stated:

> Women already know that their husband will bring another wife as soon as possible, so they are prepared for it. Polygamy can never be done away with. It is like killing the men's ego. They will look for another way of doing it.

All participants said that their parents lectured them about polygamy and they grew up in it before getting married, therefore they are familiar with it.

***Men are polygamous by nature.*** All participants declared that men are polygamous by nature. According to them, it is this nature that fuels their attraction to as many women as possible. Aduke stated, "There are many examples in the Bible, even though God made one man and one woman." Ada believed that economic hardship forces men to abandon polygamy, but not in its entirety. According to her, some family members help men who do not have the means to acquire wives. Aminat declared that the nature of men is such that men will always look for women to satisfy their sexual urges. When I asked her how she came about this theory, she responded: "It is a thing of pleasure to them. It boosts their ego. African men love to boast of their numerous wives." In the opinion of Agbeke, men are polygamous by nature because they do not get pregnant, and society does not frown against their promiscuity. She said, "In some parts of Nigeria, it is the joy of the parents when their son has numerous wives. It shows that he is a real man. Do you know that parents even boast of it?"

***Marginalization of women.*** Participants were unanimous that women are treated as property. Aduke stated, "We are not treated as equals so we cannot make decisions about anything, including sex. So we are at risk of anything." Alake stated:

> I knew I was at risk of HIV/AIDS, but my children were girls. A woman is not regarded as anybody. Also if a woman doesn't have a male child she may be

> divorced. My children were all girls. I needed to have a male child, if not he would send me and my children out of his house. Where would I go? I had to keep on with the marriage until I had a male child.

According to Ada, "I knew I was at risk for HIV/AIDS and other STDs, but I was just praying. What can I do? Women are not allowed to talk." Other participants also mentioned having a male child as one of the reasons women stay in the marriage. They explained that female children do not have a right to their father's property when he dies. They added that at the demise of the husband, family members drive away wives who have no male child. They either take the children or send them away with their mothers. Participants also stated that if a woman does not have a child or has no male child, the husband and his family are allowed to replace her with another wife. In such cases, at the discretion of the husband, the woman can remain in the marriage or be sent out. The children are either taken from her or sent away with her. The woman goes back to her parents and can decide to have another husband or remain unmarried. According to participants, the value attached to male children that marginalizes women without male children is enough to stay in the marriage despite their perceived risk of HIV/AIDS.

***Fear of rejection by the husband.*** All participants stated that they were afraid of being divorced or abandoned by their husbands if they make it known that they were aware of the risk of HIV in their polygamous marriage. Agbeke declared that she knew there was the risk of HIV/AIDS, but she could not handle being rejected by her husband if she dared bring up the idea of using a condom. According to her and other participants, a woman who asks her husband to wear a condom is asking for trouble. She would be regarded as unfaithful and disrespectful, and that is enough grounds for divorce. The

youngest of the participants, Amoke (age 18), said she got married at 16 to a man who had four wives. The marriage lasted one year. She said she was in constant fear because there was too much competition among the wives. According to her, the competition ranged from sex to materialism, to court the favor of the husband. She said when her husband would not use condom, she could not complain for fear of being abandoned. Adanma relayed a similar experience:

> My marriage was a perfect one until the wives started arriving year after year. Before long, I was forgotten. I couldn't complain. You know, women cannot say anything, but thank God that I didn't get HIV. My husband eventually came down with HIV and some of the wives too. Oh! God bless the children. I don't know what has become of them. I had to come over here with my only child that I had, for him, as soon as I had the opportunity. The wives were always fighting, and our husband would leave the house as a form of punishment for us. Sometimes, he would go for weeks and we would have to welcome him with open arms if we didn't want him to go back. What a shame! Thank God I am not in that mess anymore. He died a few years ago. I have since decided to remain single, even here in America, because I just cannot handle the emotional disturbance of being under the control of a man."

**Research Question (RQ3).** Research Question 3 asked: "How does Nigerian women's perceptions of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?" Six themes emerged from the data: (1) no use of protection, (2) fear of HIV/AIDS, (3) plan for sex, (4) be the obedient wife, and (5) coping skills, (6) escape to a new life.

***No use of protection.*** All participants indicated that they were not using protection when engaging in sexual intimacy with their husbands while in polygamy. They responded that if they requested that their husbands use a condom, he would think they had been having an extramarital affair. Aduke stated, "Except if you are ready for false accusation and divorce, you cannot demand protection. I was just taking antibiotics, but I was doing it secretly so that he would not send me out or accuse me of not trusting him." When I asked her if she knew that antibiotics do not kill viruses such as HIV, she said she did not know at that time but she knows now. Aminat stated, "In my 13 years of marriage to him, he never used condom. He always said he hated it like hell. That means to me that he has tried it outside the marriage. Inside the marriage, no wife dares mention [condom use]." She disclosed that one of her cowives was "sent packing" because she requested that their husband use a condom before sex with her: "Our husband said she must have been using it [having sex] with other men." Arike noted it was disrespectful to the man when his wife demands protection for sex: "It is like telling the man that he has a disease." According to participants, men do not believe they have STDs. In the event of an STD, the man would query his wives, even if they had been faithful to him.

Alake provided another dimension, when she stated, "That is the reason men have many wives. If a wife is pregnant or nursing her child, instead of using protection or going outside the marriage, he can satisfy himself with another wife." Amoke stated that women often do not use a condom as they do not want to use contraception to prevent conception despite the risk of HIV/AIDS: "Though I was afraid of catching HIV, I was also looking to have a child with him." Ajoke explained that some women sought alternatives to condom use to protect against HIV/AIDS:

> I was not using protection, but I had a cream that I was using to rub my body before intercourse. I got the cream from a witch doctor without my husband's knowledge. If he knew, he would kill me, but I am sure other wives were doing it too. I think it helped because I married him for 12 years and did not have HIV.

Ajoke expressed her belief in the efficacy of traditional medicine to prevent HIV/AIDS. I asked other participants to explain to me their belief about using traditional medicine for protection against HIV/AIDS. Seven participants said they do not believe that traditional medicine can prevent HIV/AIDS but they believe it can cure other diseases. After Ajoke's interview, I used probes in subsequent interviews to determine if participants used alternative prescriptions (e.g., saw a witch doctor) for protection. Two of them talked about using a witch doctor prescription for protection because they suspected that their husbands were seeing a witch doctor as a preventative measure for HIV/AIDS. Arike noted it was disrespectful to the man when his wife demands protection for sex. She said "it is like telling the man that he has a disease". According to participants, men do not believe they have STDs. In the event of an STD, the man would query his wives, even if they had been faithful to him. The wives, therefore do not use protection and neither the husband during sexual intimacy.

***Fear of HIV/AIDS.*** Fear of HIV/AIDS was the common term that participants used to describe the state of their sexual relationship with their husbands. All stated that they were in constant fear of HIV/AIDS, but there was nothing they could do because society frowns against divorce and single women. According to them, a woman who is unmarried or childless is stigmatized, therefore women have to stay in their marriage to avoid stigmatization and to bear children. Eight of the participants stated that their sexual

relationship with their husband in polygamy elicited fear or psychological distress because they knew their husbands had been with someone else and may have been infected. The remaining two participants stated that though they feared HIV/AIDS, they trusted and loved their husbands because they were not promiscuous. This may contradict the earlier view expressed that all men are promiscuous (or, contrarily, that women who think differently are in denial), however the participants appeared to distinguish between promiscuity and polygamy, the latter of which was viewed as being faithful to multiple wives. These two participants also stated that they did not trust the other wives when it comes to extramarital affairs. Amoke noted, "The wives are the ones who bring in the disease." According to Abike, at the early stages of her marriage, she did not fear much until the third wife arrived:

> From the moment I saw her, I knew we were doomed. She was always talking and behaving like a prostitute. I don't know why my gentle husband married such a lousy slut. How we all escaped HIV/AIDS, I don't know till today, but I was always praying anytime my husband had sex with me.

***Plan for sex.*** All the participants responded that sex was always planned. Each wife had her own day to sleep with the husband. Alake said sometimes they had a mix-up and the wives would fight the whole day. She stated further that the husband sometimes created the mix-up so as to sleep with the favorite wife. Amoke stated "this was the most frustrating for me" Arike stated that after sometime, her husband did not include her in the plan anymore because she had no child. She added that though she did not like that he abandoned her, she was grateful that she was not in fear of contracting HIV. Ada explained by stating:

> Sex plan is a roster that we do to show who sleeps with him at what day of the week. It is something that we have to keep to, else it turns to a huge fight. Except the husband changes it no wife can take another wife's position. It is rare for husbands to change it unless the wife requests for change due to illness or pregnancy. Pregnant and nursing wives don't participate at all.

Aminat explained planned sex better by stating:

> It is a roster that we make to show the days when each wife would sleep with the husband. When we were 3 we used to make it a daily affair. My days were Mondays and Tuesdays, the second wife Wednesdays and Thursdays and the third wife Fridays, Saturdays, and Sundays. The last wife usually has more days because she is the most recent wife and needs to enjoy the husband more. When the second wife died, and our husband refused to marry another one to replace her, I took her Wednesdays and the third wife took her Thursdays. When one of us is pregnant, nursing, or menstruating, it is enjoyment galore for the other wives because the wife is excluded from the roster.

Amoke also talked about the planned sex by stating:

> We had a roster for when to sleep with our husband. Each wife goes to sleep with him on her own day. At the time I came the first wife was not participating in it because according to our husband she was too old for sex. Later I learned that she was abandoned because she asked our husband about condom and he started suspecting her. That left 4 of us for 7 days. I got 3 days being the youngest and newest wife. The fourth wife had 2 days and the rest had a day each. Any of us

who was pregnant or menstruating would give up her place to one of the other wives.

***Be the obedient wife.*** According to all participants, the knowledge of HIV/AIDS could not prevent them from having sexual relationship with their husbands. The culture dictates that a woman must be obedient to her husband. According to them, they had no choice because culture forbids women denying their husband sex or dictating when and how it is convenient for them. Participants stated that co-wives are always fighting but when it comes to dealing with their husbands they have to carry out his orders. Participants considered obedience to their husbands as a self defense mechanism to avoid their husbands' discipline. Participants reported that women who do not want to incur the wrath of their husbands are usually following their husbands' rules and demand for sex. According to participants, in Nigeria, men can beat their wives for any offense without the wives beating the husband back or reporting him to anyone in the community. According to Adanma, "no we don't go to anybody for support. What happens in the home stays in the home. That is one of the trainings we received as girls." According to Ada, when the wife gets injured from the husband's discipline, she cannot call the police because the police will support the man and there is no law supporting the woman in the village. In large cities, there are Priests and Elders who act as counsellors. The counseling is usually more about how the woman will be more obedient to the husband. According to participants, wives do not go to hospital for treatment if injured by their husbands through discipline because the husband who is the custodian of the money in the home will not pay the hospital bill.

***Coping skills.*** Coping skills came out as a common theme in polygamy where participants mentioned how they tried to find ways to protect themselves from getting infected as a result of having sex with their husbands. Seven of the participants reported to rely solely on prayers and hope, while three participants actually took additional measures such as playing sick and using cream from local traditional healers to protect themselves. In both cases, the participants indicated that the underlying fear and coping mindset would negatively impact their sexual relationship.

***Escape to a new life.*** Some of the participants won the American visa lottery while others were invited to America by families who also helped them to get their permanent residency. They talked about their former husbands' willingness to release them because everybody hears about the good life in America. They stated that their former husbands allowed them hoping that they would help them (the husbands) to come to America too. The women state that they see the opportunity to come to America as a way of escape from polygamy but they do not have the guts to tell their husbands. Participants talked about their new lives in America. All of them except Adanma have men in their lives. Amoke is not married but has a steady relationship with an African American man who she described as loving her as much as she loves him. Abike stated "Anyway, my present husband is the best. I am free of fear and I can talk. Thank God for America." Ajoke described her present marriage as:

> It is heaven on earth. I thank God for bringing me here and meeting my present husband. My past marriage was a mess. My present husband is Nigerian too. He was born here and grew up here. He is a nurse. We spend our money together and love each other.

Alake remarked about her present husband:

> He is Nigerian. He came here when he was 20 years old. He is 40 now and has 2 children with his late wife. I have a child with him. He is a teacher. He allows me to make my decisions and he is never controlling. We spend money together, we raise our children together and go to places together. My children love him as their own father. He means everything to me.

The willingness of these women to share their experiences in polygamous marriages provided a window into their lives: the ubiquitous presence of polygamy in their culture, the dominance of men over women, the fear of HIV/AIDS, their helplessness to protect themselves from the disease, and their feeling of joy to escape to a new life where they are free from polygamy.

Another reason participants stated for staying in polygamy despite their perception of risk of HIV/AIDS was procreation. According to the women, a woman without a child faces discrimination.

It appears that participants were not happy being in polygamy. As each of them narrated the history of their lives in polygamy, they showed emotions of frustration and sadness. Conversely, they showed emotion of happiness as they talked about their new life and marriage in America.

## Data Verification (Trustworthiness)

I did everything possible to ensure that data was collected and analyzed appropriately and ethically. I used both computer and manual methods of data analysis to ensure trustworthiness. As the instrument of data collection, in order to understand the phenomenon as it reveals itself, I set aside my biases, beliefs, and judgments as stated by

Moustakas (1994) as the "epoche process". I tried to see the phenomenon from the perspective of the interviewee.

Through data saturation and reflexivity, I was able to assure credibility in the data. In addition, I used the method of participative member checking as suggested by Doyle (2007), by asking participants to choose their most convenient way to check the transcripts and analysis for accuracy. Six participants chose to receive hard copies while four participants had me read their transcripts back to them. All of them confirmed that I captured everything they said. Transferability to other polygamous situations was provided through thick and rich descriptive summaries of participants' responses, which included employing verbatim quotes from participants.

Dependability of the interview protocol was achieved by conducting a focus group discussion with 2 women who were separate but similar in selection to the study participants. In addition, I maintained consistency in my recruitment, data collection, and data analyses processes. I created an audit trail by keeping a documentation of all the components of this study.

Confirmability was gained by interviewing a number of participants with different ages within the age group criteria of 18 to 45 and comparing their responses. In this study, the participants' responses to polygamy being a factor in the spread of HIV/AIDS were similar. Their experiences of polygamy were also similar. There were no differences in their perception of HIV/AIDS due to their level of knowledge of HIV. All participants reported that they knew they were at risk for HIV/AIDS while practicing polygamy. In addition, I used direct quotes from participants to provide a rich thick description of participants' experiences when they were practicing polygamy.

## Summary

This study explored the lived experience of polygamy in relation to the perspectives of HIV/AIDS. Ten women who met the inclusion criteria were interviewed. They all reported having lived in a polygamous marriage in rural Nigeria before immigrating to the United States. The study was conducted using semistructured, in-depth interviews. Privacy and confidentiality were maintained by the use of pseudonyms. The study was guided by the research questions. Data collection interviews continued until the topic was saturated; that is when participants introduced no new perspectives on the topic.

The women who participated in the study provided insights into what they understand about HIV/AIDS, their risk for HIV while practicing polygamy, and how they felt unsafe having sex with a polygamist. Participants expressed some knowledge of HIV/AIDS. They attributed AIDS to most deaths in polygamous living. They were aware of their risk of contracting HIV, but expressed fear of abandonment or divorce if they refused sexual advances from their husbands.

Data was coded into categories, themes, and concepts that revealed how these women gave meaning to their general risk for HIV/AIDS through their experience of polygamy**.** Data was analyzed using NVivo 10, and Hycner's (1985) method for analyzing phenomenological studies. Themes were developed from the transcripts to reveal a description of participants' experiences and their perspectives of HIV/AIDS while practicing polygamy. This description allowed me, as a researcher, to examine the women's experiences by entering their world and exploring the meaning they gave to those experiences.

The aim of this study is to provide this information for program developers and health institutions, in order to develop initiatives that can help woman in polygamy prevent HIV/AIDS. It is intended that this information will help to support advocacy for the use of female condoms and community-wide health education for women in polygamous marriages. Chapter 5 will discuss the findings of this study, their implications for social change, and subsequent recommendations and conclusions.

# Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to explore the perspectives on HIV/AIDS held by American-based immigrant Nigerian women who experienced polygamy in rural Nigeria before they immigrated to the United States. The study was a phenomenological study on 10 immigrant Nigerian women who voluntarily agreed to share their lived experience of polygamy and their perception of HIV/AIDS while in polygamy. The goal of the study was to collect information from these women in order to inform health policy makers on developing preventive interventions for women in polygamy. The expectation is that such an intervention would reduce the prevalence of HIV/AIDS in Nigeria. With the health belief model serving as the theoretical foundation of this study, the data revealed that the women perceived their own susceptibility to HIV/AIDS, the severity of HIV/AIDS, barriers of the culture of polygamy affecting prevention of HIV/AIDS, and the benefits of a single-partner relationship.

Based on the literature review outlined in Chapter 2, this study is the first to specifically address perspectives on HIV/AIDS with women who left the shores of a country where they practiced polygamy, a high-risk sex behavior. The reason for choosing immigrant women was a desire to get unbiased opinions due to the benefit of freedom of speech in the United States. What the participants shared with me reflected their perspectives, behaviors, and feelings as they experienced and coped with life inside polygamy while trying to maintain their culture and hoping that they would not contract HIV/AIDS.

In this chapter, I present a summary of key findings from the analysis of data in Chapter 4 and the interpretation of findings. The interpretation of findings includes the

relevance of the findings to the literature that formed the basis of this study, as discussed in Chapter 2. Furthermore, I discuss the health belief model (HBM), which forms the theoretical background for the study. In addition, I discuss the limitations of the study, recommendations for further studies, and the study's social change implications. Finally, I present conclusions based on the findings of the study.

## Summary of Key Findings

The findings presented in Chapter 4 were beyond what I originally anticipated. Whereas I was focusing on finding indications of a relationship between polygamy and the spread of HIV, the probing questions revealed a complex matrix of sociocultural elements that are contributing factors to the problem. Synthesizing the analyzed data in the rural Nigerian cultural context allowed me to develop a deeper understanding of HIV and polygamy. In order to reach the conclusions of this research, I mapped my research questions onto the theoretical framework of HBM, as shown in Figure 1.

Before discussing the details of the synthesis of the results, I would like to provide a summary of findings for the purposes of continuity.

The major findings as presented in Chapter 4 are summarized here. The study was informed by three research questions:

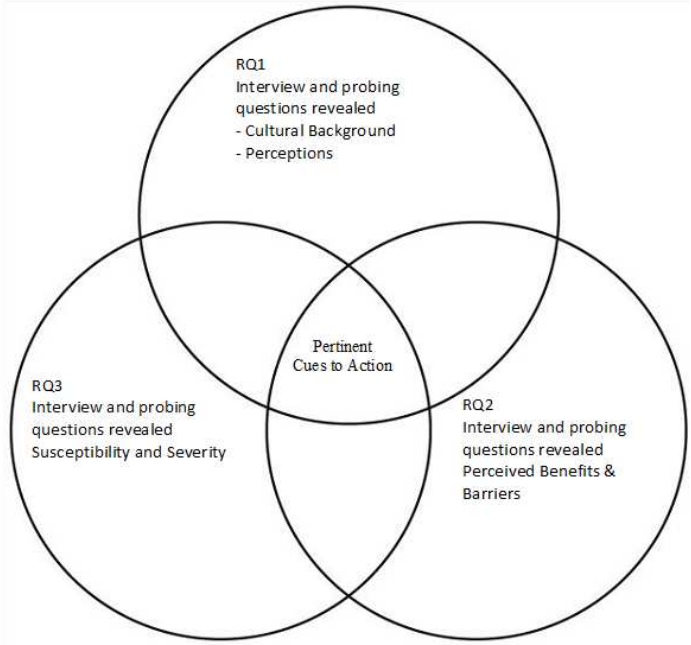


*Figure 1.* Theoretical framework.

RQ 1: *How do Nigerian women who practiced high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?*

Participants revealed that while they were practicing polygamy, they knew HIV/AIDS to be a killer disease, as reported on their television and radio stations. They stated that many people died of AIDS and others were seriously sick. According to them, hospital officials were rejecting people with HIV/AIDS for fear of infection. They claimed that they were told that sex was the means of transmission. They stated that their men were advised to use condoms and to maintain a monogamous relationship, but it was difficult for men to use condoms and not be polygamous. One reason indicated for this difficulty was the belief that men do not accept that they can be infected. According to the women, if men are infected, they do not generally disclose it, and if they disclose it,

they hold their wives responsible. One participant gave an account of a family in which everyone except the first child died of HIV/AIDS. Four participants experienced the deaths of their loved ones through HIV/AIDS. According to participants, people with HIV/AIDS were met with so much discrimination that they hid their status and infected other people. They stated that discrimination was the reason that HIV/AIDS spread like wildfire in Nigeria. These reports suggest that participants had some knowledge of HIV/AIDS. The participants' consensus fit well with the constructs of HBM. The women perceived that they were susceptible to HIV/AIDS due to their practice of polygamy, though it was the norm in their culture (perceived barrier). They had basic information about HIV/AIDS from the mass media, suggesting that they were aware of the severe consequences of HIV/AIDS, which include disability and death.

RQ 2: *How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS?*

Participants reported that polygamy poses a risk for HIV/AIDS. They shared their lived experiences of polygamy and their theory that men are polygamous by nature. They stated that Nigerian women are brought up to understand that a husband will have more than one wife and that they were therefore prepared for life inside polygamy. One participant stated that some women look forward to having a cowife or choosing a cowife for their husbands when they are nursing their children so as to allay the fear of their husband contracting HIV/AIDS by having sex outside the family. The downside to having a cowife, according to other participants, is that the cowife may come with HIV/AIDS and infect the whole family. According to participants, polygamy boosts men's egos, and they are proud to have many wives. Participants declared that the culture

marginalizes women and does not give them a voice or choice in decision making. They stated that though they knew they were at risk of contracting HIV, they could not remain single because the society frowns upon single or divorced women. There was fear of rejection or abandonment by the husband if they declared their risk for HIV/AIDS. Participants were of the opinion that a man cannot satisfy all of his wives, resulting in the wives secretly seeking sexual satisfaction outside the marriage. This, in turn, poses a risk for HIV/AIDS. Extramarital affairs, which are common in polygamy, fuel HIV/AIDS (Sadiq et al., 2010; Nyathikazi, 2013). One participant gave an account of when she asked her husband to use a condom because he told her he had been with several women. She stated that her husband beat her up and forced her to have sex. According to her, for several months after that, he did not sleep with her. Through participants' reports, it appears that women are aware of the risk of HIV/AIDS in polygamy (perceived susceptibility) but have no power to dictate the terms of sexual encounters (perceived barrier).

RQ 3: *How does Nigerian women's perception of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?*

Participants reported that their perception of HIV/AIDS did not affect sexual relations with their husbands in polygamy. They submitted that though they were in constant fear of HIV/AIDS, they were not using protection because they wanted to have children. According to them, children are what keep a woman in her marriage, and preference is given to male children. Without a male child, a woman and her female children will leave at the demise of the husband. Participants declared that though they hated the idea, sex was planned like a meal, and a plan needed to be adhered to. Each

wife had her own day to sleep with the husband. They stated that according to the culture, a woman must obey her husband, including having sex at any time, in any manner. According to participants, a woman who asks her husband to use a condom is asking for trouble. The husband would accuse her of infidelity and divorce her. The older participants stated that when they stopped having children, they were happy because they were no longer included in the plan for sex; therefore, they were no longer exposed to HIV/AIDS. According to participants, they were unhappy with sex in polygamy, but their coping skills were praying, watching, and hoping that they would not contract HIV/AIDS. One of the participants responded that she was using a cream that she got from a witch doctor to rub her body before having sex with her husband. She claimed that the cream worked for her. These reports reveal that participants were not happy having sexual intimacy with their husbands in polygamy because they feared HIV/AIDS (perceived severity). The desire to have children overrides the fear of infection, and the culture forbids a woman from refusing sexual intimacy with her husband. Refusal results in divorce or abandonment. These perspectives reveal that modifying factors such as sex, ethnicity, environment, knowledge, and so forth affecting perception can lead to likelihood of change as proposed by the HBM. Mariga et al. (2010) proposed in their study that these modifying factors acting as barriers can be used as the basis for behavioral interventions.

## Interpretation of Findings

In this section, I interpret the findings based on the research questions. This is followed by the discussion of the findings in the context of the theoretical framework that provided a guide for this study.

RQ 1: *How do Nigerian women who practice high-risk sexual cultural behavior such as polygamy perceive HIV/AIDS while in polygamy?*

From this study, it appears that women from the rural areas of Nigeria have little information regarding the nature of the transmission of HIV/AIDS. Their perception of HIV/AIDS as a killer disease that is transmitted through sex and carries stigma is consistent with the literature reviewed (DHHS, 2014; CDC, 2012; AVERT, 2014; Strauss, 2012; Mariga et al., 2010). However, the only means of transmission that participants mentioned is sexual intercourse. Their responses did not demonstrate an understanding of other forms of HIV transmission such as breast milk, blood transfusion, lacerations, use of unsterilized syringes etc. Lack of adequate information has been linked to the spread of HIV/AIDS (AVERT, 2014). Studies have documented that at the earlier days of HIV, people considered hand shaking, toilet seats, eating utensils, and mosquito bites as means by which HIV/AIDS could be transmitted (Obidoa & Cromley, 2012; Odimegwu et al., 2013). This lack of information contributes to discrimination against people who have HIV/AIDS. Participants claimed that anyone with HIV/AIDS is avoided in the community and the hospitals do not accept them. This attitude reveals perceived severity of the disease. For this reason, people do not disclose their HIV status and consequently do not present for testing and counseling. Perhaps this lack of information is also the reason people are not aware of available treatment such as ART that has been approved for use to extend the lives of people living with HIV/AIDS. With the use of ART, people are beginning to live longer and manage opportunistic infections associated with the disease (DHHS, 2014).

Stigma against people with HIV/AIDS is consistent with the cross-sectional study conducted by Odimegwu et al. (2013) discussed in the literature review. They revealed that public attitudes towards people with HIV/AIDS is a strong predictor of voluntary counseling and testing. As a consequence of this stigma, the likelihood of Nigerians pursuing voluntary counseling and testing is low, which consequently decreases the use of ARTs and the chances of survival. Another aspect of stigmatization reported by participants is discrimination against single women. The Nigerian culture looks down on single women of marriageable age and divorced women. According to the women, they are labelled as prostitutes. This is one of the reasons women marry and stay married despite perceived susceptibility to HIV/AIDS brought about by their promiscuous husbands or co-wives. Alongside discrimination is the preference for male children. Where a woman has no male child, she cares less about infection despite perceived severity of the infection. This reveals that if the woman is a carrier of infection herself, the desire to have a male child will override disclosing that she is a carrier.

RQ 2: *How do Nigerian women who practiced high-risk sexual cultural behavior such as polygamy perceive their general risk for HIV/AIDS?*

Participants reported that there is a link between HIV/AIDS and polygamy. This shows that women who practice polygamy have a high level of risk perception. All of them declared that polygamy fuels HIV/AIDS because of extra-marital affairs which exists in polygamy. Two participants stated that there was faithfulness on the part of their husbands but the wives who have no sexual satisfaction by their husbands cannot be trusted when it comes to extra-marital affairs. This is in line with the observations made by Sadiq et al. (2010) and Nyathikazi (2013) in the literature reviewed. The researchers

posited that extra marital affairs in marriage is what makes polygamy a fuel to HIV/AIDS; polygamy practiced according to the rule of faithfulness could not promote HIV/AIDS. While Nyathikazi studied men in polygamy, the current study focused on women in polygamy. A study on women in polygamy will extend knowledge on the struggles that women who marry into polygamy experience in an attempt to adhere to culture. According to participants, Nigerian women have no voice or choice in anything pertaining to their lives. As they have no power to negotiate the terms of sex encounter, women are vulnerable to HIV/AIDS.

Participants reported constant fear of HIV/AIDS as they live their lives in polygamy. This is consistent with the study of Awusi and Anyawu (2009) examined in the literature. It appeared that their lived experience of polygamy is tainted with fear of infection of HIV/AIDS but the women had no power to free themselves from the culture of polygamy. The gap in the study of Anwusi and Anyawu that the current study seeks to fill is by conducting interview with women who have the power to make their voice heard after immigrating to the United States where there is freedom of speech for women.

Participants believe that the nature of men is that of polygamy and women are trained to accept this notion. This is consistent with the study of Mariga et al., (2010) in the literature review. This belief poses a high risk to contracting HIV/AIDS. In some parts of Nigeria, men can marry as many wives as they want. Men marry many wives to satisfy their sex desire and to pass off as wealthy. In Nigeria, the size of a family is considered indicative of wealth (Anyanwu, 2013). Though Ilevbare (2009) stated that the Islamic code allows polygamy and equal treatment of wives, women who hold the belief that men are polygamous by nature do not get sexual satisfaction from their husbands and

consequently look outside the marriage for satisfaction. One of the participants declared that there are instances of younger wives cheating with older children of the husband. Another participant reported that she had a boyfriend because her husband who is as old as her father could not satisfy her sexually. From these reports, one can deduce that sexual relationship in polygamous marriage is a risky affair. The risk is more pronounced where men do not accept that they can be infected. When they get infection they do not disclose it and if they disclose it they blame their wives for infecting them. Studies have revealed that non-disclosure of HIV/AIDS promotes the spread of HIV/AIDS.

RQ 3: *How does Nigeria women's perception of HIV/AIDS and risk affect sexual relations with their husbands while in polygamy?*

Findings in this study reveal that women are subjects to men in everything including sexual encounters. Participants reported their inability to request the use of condom by their husbands during sexual intimacy. Such request is met with punishment form the husband. Though risk perception was high, it did not prevent them from engaging in risky sexual behaviors. The widely held belief is when a woman asks for protection such as condom from the husband, such woman is deemed promiscuous and will be punished through abandonment or divorce. This is consistent with the study of Sadiq et al. (2010) in the literature review. Findings also reveal that the subservient role of women place them as subjects to men. According to all the participants, women have to obey their husbands in everything. They have to be willing to have sex anytime he requests it. Though they are in constant fear of HIV/AIDS, their orientation is to always be ready to have sexual intimacy with their husbands so that he will love them more and see them as the obedient wife. This brings competition between wives to cut the favor of

the husband. It is regarded as a booster to the man's ego when his wives are competing to seek his favor and to have sex with him. Competition has resulted in using a plan to apportion a day for each wife to sleep with the husband. This act not only infringes on the freedom of women, it allows for extra-marital affairs by women who are not satisfied. Although participants did not mention extra-marital affairs as one of their coping skills, it appears to be a coping skill. Extra-marital affairs in polygamy is a precursor to the spread of HIV/AIDS (Sadiq et al., 2010; Nyathikazi et al., 2013).

## Theoretical Framework Analysis

I designed this study to explore the perspectives of immigrant women on HIV/AIDS with their experience of polygamy. I used the health belief model (HBM) to evaluate the perception of the women about HIV/AIDS and their attitude towards the risk that polygamy poses for HIV/AIDS. I submit that this model helps to affirm the findings of the study and will subsequently help in dissemination of findings to stakeholders. The general construct of the HBM model is shown in Figure 2.

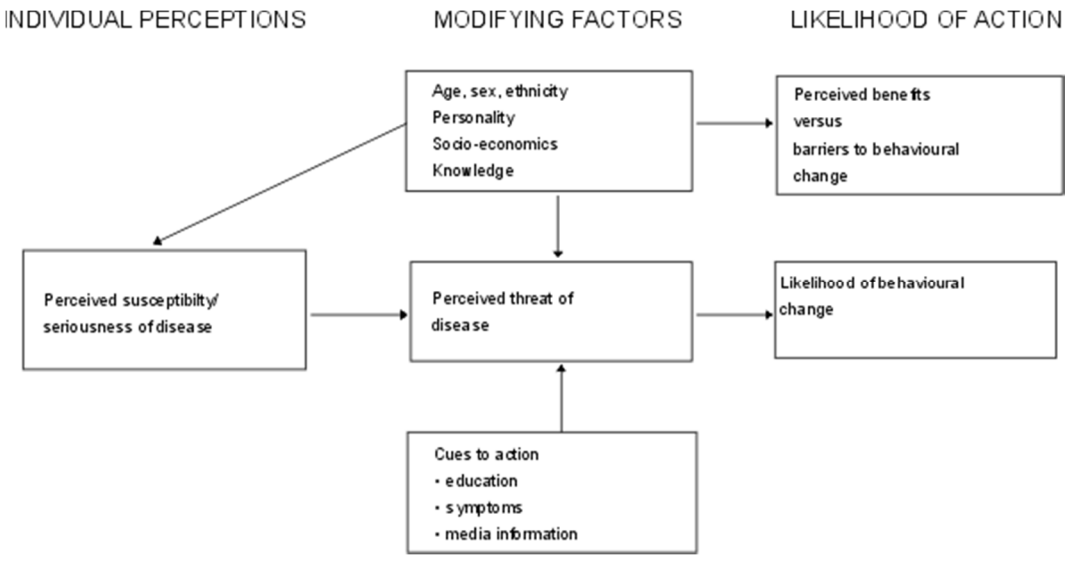


*Figure 2.* The diagrammatic expression of the HBM. From Glanz et al., 2002, p. 52.

The HBM is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals. The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The HBM has four constructs; perceived susceptibility, perceived severity, perceived benefits, and perceived barriers (Sharma, 2011). I used the general construct of the HBM model to better understand and synthesize the findings of the research. This study reveals that there is perceived susceptibility to HIV/AIDS with women interviewed. All of them admitted that they were at risk of contracting HIV/AIDS when they were practicing polygamy (perceived susceptibility). All of them admitted that they knew the severity of HIV/AIDS and they knew that polygamy promotes the spread of HIV/AIDS but they could not refuse their husbands sex or demand that he uses protection (perceived severity). They all admitted that they were in constant fear of HIV/AIDS which is an indicator that they knew it will be beneficial to be able to prevent the disease (perceived benefits).Those who have a high perception of risk are more likely to seek intervention (Nyathikazi, 2013). The barriers mentioned were the responses of their husbands to use of condom which could be beating, abandonment or divorce. In close relationship to the four constructs are cues to action and self-efficacy which were added by Rosenstock and others in 1988. Cues to action would activate Nigerian women's readiness to change the risky behavior. Self-efficacy reveals the level of confidence of the women in their ability to change the risky behavior. Changing a risky behavior in this study involves preventing HIV/AIDS for the women who are in polygamy and making attempts to stop polygamy by informing the younger generation of its negative consequences.

Critically thinking about all these factors in the perspective of Nigerian rural women's mindset brings to light a bigger picture that includes many factors that can be influenced to mitigate the negative consequences of polygamy. The problem that the rural Nigerian community is exposed to is seemingly much larger than just HIV. Beyond the obvious threat to individual health, the phenomenon under study appears to be impacting both the socio-cultural values and quality of upbringing of the future generations. I have attempted to include the bigger picture of the imminent threat into the perceived threat of the HBM model. The approach of making people realize the higher stakes may help generate momentum required to trigger the sense of efficacy that would be required for the rural Nigerian community to face the challenge. This approach could also enable the local NGOs and government organizations to approach the problem from multiple view angles. As an example, a public appeal to bring about a change can be based on not only medical grounds, but also on the grounds of saving rural culture from getting corrupted, securing a brighter future for next generations. A depiction of these ideas is captured in Figure 3 below.

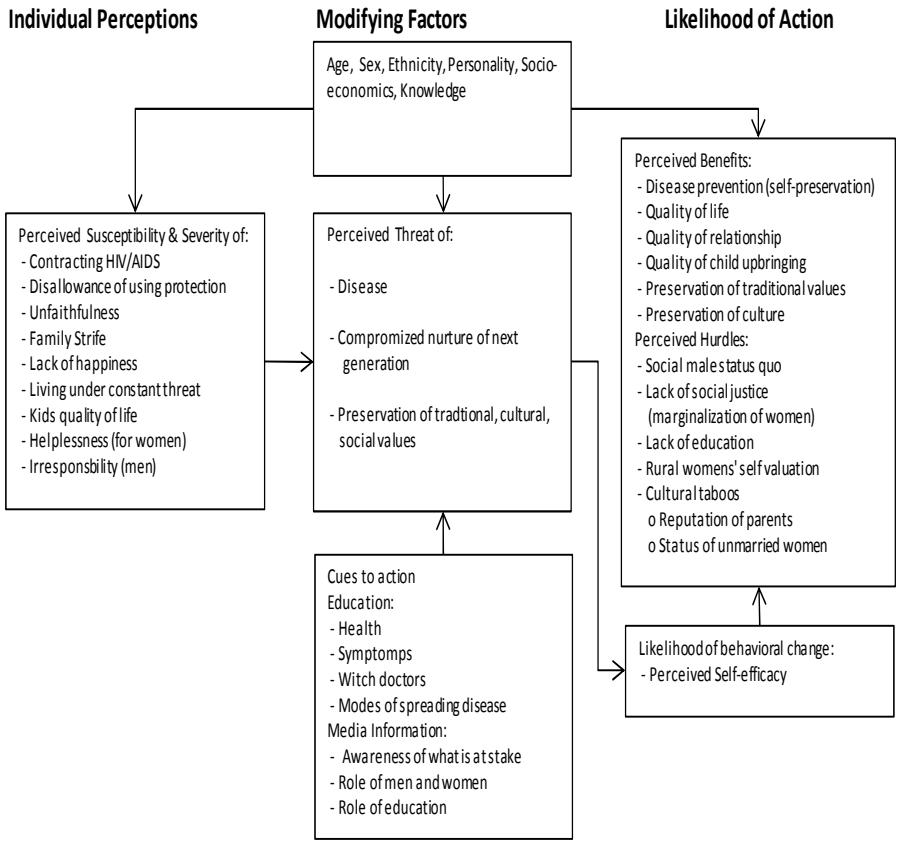


*Figure 3.* Barriers to action.

## Limitations of the Study

This study is based on a small sample of participants that is limited to one of the ethnic groups of Nigeria. Although two of the participants lived in the Eastern and Northern parts of Nigeria, they come from the same ethnic group of Yoruba as the rest of the participants. However, the intent of this study is not to generalize but to explore the perspectives of HIV/AIDS as perceived under a polygamous marriage.

A second limitation is that of the researcher as the principal interviewer. This role leaves the researcher to interviewer bias and data interpretation error. The error was

minimized by using member checks. All findings were reviewed by the participants to ensure validity.

Lastly, the participants of this study have all immigrated out of Nigeria. This change in life style has reportedly provided the participants an opportunity to gain education. Interestingly most of the immigrants interviewed chose to get further education in a medical related field. Participants' desire to follow a medical profession may be reflective of their need to feel empowered (after years of helplessness against HIV). Research has shown the benefits of education to include the ability to express oneself. Findings of this study could be different if it were conducted in Nigeria with women who are in polygamy in Nigeria. It is possible that husbands will not allow their wives to participate in this study in Nigeria without their presence. It is also possible that the women in Nigeria may be too afraid to be forthcoming with honest responses about their experiences of polygamy. The focus of this study was to interview women who are empowered to express themselves without fear of their husbands or in-laws. This is made feasible by the freedom of speech enjoyed by Nigeria immigrant women in the United States.

## Recommendations

Further research is needed to seek the opinion of Nigeria women who are still practicing polygamy about HIV/AIDS and their thoughts on how to be adequately informed about the transmission of the disease and the preventive measures that are available. There is the possibility that this study is biased towards women who are more exposed and have the ability of freedom of speech. Furthermore, it is recommended that similar research be conducted with other ethnic groups in Nigeria where more light can

be shed on the cultural practices of marriage as it affects the spread of HIV/AIDS in different communities of Nigeria. Nigeria communities comprise different ethnic groups with different languages (Mairiga et al., 2010). In addition, it is recommended that more research should focus on the opinions of women in polygamy regarding suggestions for culturally acceptable prevention methods that fit in with polygamy. This is expected to help program developers to assure the level of self-efficacy in the women who will be accessing preventive initiatives. Self-efficacy is a significant factor in behavior change. It is also recommended that more participants should be used to get to the depths of polygamy and its effects on HIV/AIDS.

## Social Change Implication

The social change implication is to reduce the prevalence of HIV/AIDS in Nigeria by advocating for safer sex practices among people who are married into polygamy as a cultural belief. It is expected that the information gathered from this study will help the Nigerian Ministry of Health, the Nigerian Ministry of Education, and other health program developers to develop an initiative, such as the female condom, to empower the Nigerian woman to prevent HIV/AIDS. It is also expected that the information will help the younger generation to make informed decision when getting married. At the community level, the information gathered by this study will be presented to the community leaders in rural cities of Nigeria where polygamy is more prevalent. This information will be used to campaign for prevention of HIV/AIDS through safe sex, screened blood transfusion, and non-sharing of needles and syringes. The presentation will be made in form of seminars and community conferences by health workers. Health workers will be encouraged to participate in staff training and development programs that

enhance their knowledge of HIV/AIDS by using this information. Nowhere in the study did any participant mention health workers as their source of information on HIV/AIDS. At the organization level, this information will be useful for mass media organizations to launch campaigns against polygamy without safe sex practices for those who are married into polygamy and to campaign against polygamy for the younger generation. The ultimate goal is to desist from the negative health behavior of polygamy so as to reduce the prevalence of HIV/AIDS.

## Conclusion

The results of this study confirm that polygamy is a high risk for spreading HIV/AIDS. This presents an opportunity for program developers to create initiatives that prevents HIV/AIDS in the rural communities of Nigeria where polygamy is more prevalent. From the findings of the study, women are at a disadvantage when it comes to preventing sexually transmitted diseases including HIV/AIDS. Findings also reveal that there is a high level of stigma attached to HIV/AIDS that results in discrimination against HIV positive individuals. Perhaps this could be attributed to lack of adequate knowledge regarding the transmission of the disease. It is important to create prevention programs that focus on women due to their perceived risk of HIV/AIDS. Community-based programs and mass media organizations should reinforce monogamy as a normative practice. A long-term community-based program will increase knowledge and consequently reduce the stigma attached to HIV/AIDS. It is expected that with increase in knowledge about HIV/AIDS and awareness of prevention methods, women will be empowered to protect themselves from HIV/AIDS infection.

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Appendix A: Letter to the Redeemed Christian Church, Manchester, New Hampshire

Pastor……
Redeemed Christian Church of God
Manchester, New Hampshire
Date…….

Dear Pastor…….
My name is Christy Olorunfemi. I am a Doctoral candidate of Walden University. I am conducting a research on the perspectives of HIV/AIDS among American-based immigrant Nigerian women who have experienced polygamy in rural Nigeria. Studies have shown that polygamy plays a role in promoting HIV/AIDS. What we do not know are the opinions and views of the role of polygamy in regards to HIV/AIDS from women who have been in polygamy before they left their country to reside in a country where polygamy is not practiced.
Your assistance to identify women in your church who fit into this category and who are willing to participate will be appreciated. The women must have been involved in polygamy in rural Nigeria where polygamy is widely accepted as the system of marriage. They must also have appropriate residential status. Once identified, I would like to meet with them to discuss the nature of this study. The participants are free to discontinue participation at any time. Information provided by the participants will be kept strictly confidential.
I am willing to discuss with you about the research. Please contact me by telephone on my cell phone number XXXXXXXXXX or email at
christianah.olorunfemi@waldenu.edu
Sincerely,
Christy O. Olorunfemi
Doctoral Candidate
Walden University

Appendix B: Letter to Participants

Dear……
Address…..
Date…..

Dear…..
My name is Christy Olorunfemi. I am a Doctoral candidate of Walden University. I am conducting a research on the perspectives of HIV/AIDS among American-based immigrant Nigerian women who have experienced polygamy in rural Nigeria. Studies have shown that polygamy plays a role in promoting HIV/AIDS. What we do not know are the opinions and views about the role of polygamy in regards to the spread of HIV/AIDS from women who have been in polygamy before they left their country to reside in a country where polygamy is not practiced. This study will ask you to talk about your thoughts and feelings about polygamy and how it helps to spread HIV/AIDS. Your thought and feelings make you an expert and they can be used to help other women who are in polygamy. Your information will not be shared with anyone.
I appreciate your willingness to participate in this research. I understand that your time is valuable to you, therefore I have designed the interview to be conducted with you, within a period of 30 minutes, on a Saturday and at a location that is convenient for you. I will not require you to do anything you do not feel comfortable doing. The meetings are designed to simply get to know you and learn about your experience of polygamy and the role polygamy plays in the spread of HIV/AIDS. All information gathered will be kept strictly confidential.
I am willing to discuss the research with you. Please contact me on my cell phone number XXXXXXXXX or email at christianah.olorunfemi@waldenu.edu
Sincerely,
Christy O. Olorunfemi
Doctoral Candidate
Walden University

# Appendix C: Interview Protocol Questions

Date:_____

Location:_____

Name of
Interviewer:_____

Name of Participant:_____

What is your age?

How old were you when you got married?

How old was your husband when you got married to him?

Was this your first marriage?

What was your education status?

What was the education status of your husband?

What was your occupation?

What was the occupation of your husband?

How many other wives did your husband have and what was their ages?

How many children lived in the home?

Please tell me about where you lived in Nigeria

How would you describe your family of origin?

How did you meet your husband?

Please describe how you got married to your husband?

How would you describe your relationship with your husband?

How would you describe the other wives of your husband?

Tell me about your relationship with other wives?

How would you describe your experience of polygamy?

How did you cope living in polygamy?

What was the role of your husband in polygamy?

Please tell me what you knew about HIV/AIDS while in polygamy

What is your opinion about polygamy and HIV/AIDS?

How did you perceive your risk for HIV/AIDS when you were in polygamy?

How did your knowledge of HIV/AIDS affect your sexual relationship with your husband when you were in polygamy?

How is your relationship with your husband in your present marriage where you do not practice polygamy?

# Appendix D: Informed Consent

**Letter of Informed Consent**

Perspectives of HIV/AIDS among American-based immigrant Nigerian women who have experienced polygamy in rural Nigeria

Walden University

You are invited to take part in a research study of women who have experienced polygamy in Nigeria. The research study is about their thoughts on how polygamy promotes the spread of HIV/AIDS. You were selected as a possible participant because of your knowledge and/or experience related to the topic. Please read this form thoroughly. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. It is important that you read the form and ask questions before acting on this invitation. If you understand the content of this form please sign the form as a way of showing that you have read and understand the content and you are a voluntary participant.

This study is being conducted by a researcher named Christy O. Olorunfemi, Doctoral Candidate at Walden University. The researcher's advisor is Dr Jeanne Connors, Walden University. If you have questions, please contact the researcher at phone number 6032648339 or email christianah.olorunfemi@waldenu.edu and her advisor at phone number 8009253368 or email Jeanne.connors@waldenu.edu

**Background Information:**

The purpose of this study is to explore your perception of HIV/AIDS as a woman from rural Nigeria who has been in polygamous relationship before you immigrated to the United States where you no longer practice polygamy.

The researcher will be asking you questions in an interview such as: Describe your experience of polygamy and what are your thoughts about HIV/AIDS? When you were practicing polygamy how did you view your risk for HIV/AIDS? How did your view of HIV/AIDS affect your relationship with your husband? These are examples of questions that you will be asked during the interview.

**Procedures:**

If you agree to participate, you will be involved in an interview in your location of convenience or your church (the redeemed church) on a Saturday for a period of 30 minutes. You will be asked to meet with the researcher at a time allotted to you between 9am and 3pm. In order to keep your privacy, you will be the only person interviewed at your allotted time.

**Voluntary Nature of the Study:**

The study is voluntary. Your decision to participate or not will be respected and will not affect your current or future relations with Walden University or your family. If you initially decide to participate, you are still free to withdraw at any time later without affecting those relationships.

**Risks and Benefits of Being in the Study:**

Being in this study will not pose risk to your safety or well-being. The potential benefit of participating in this study is the provision of educative information for women who are in polygamy in Nigeria and program developers who are creating intervention for HIV/AIDS.

You may choose not to answer questions that will create stress or anxiety for you and you can stop being a participant at any time.

**Compensation:**

There is no form of compensation for participation.

**Confidentiality:**

Your information will be kept private and confidential. The researcher will not use any of your information outside of this research study. No aspect of this study will reveal your identity in any form. Research records will be kept in a locked file; only the researcher will have access to the records. Data will be kept for a period of at least 5 years, as required by the university.

**Contacts and Questions:**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher by telephone 6032648339. You can also contact Walden University Research Representative by telephone 6123121210 if you want to ask questions privately about your rights as a participant in the study. Walden University's approval number for this study is 01-16-15-0066170 and it expires on January 15, 2016.

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

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. I have asked questions and received answers. I understand that I am agreeing to the terms described above. I consent to participate in the study.

Printed Name of Participant ----------

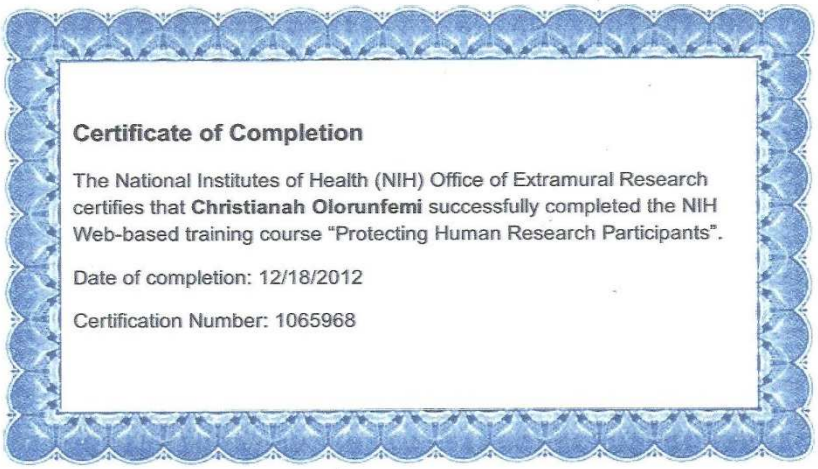
Date of Consent ----------

Participant's Signature ----------

Researcher's Signature ----------

WALDEN UNIVERSITY 2015.01.16 13:50:03 -06'00'

# Appendix E: Certificate of Completion



**Certificate of Completion**

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Christianah Olorunfemi** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 12/18/2012

Certification Number: 1065968

Appendix F: Confidentiality

**Confidentiality Agreement**

**Name of Signer:**

During the course of my activity in collecting data for this research "Perspectives of HIV/AIDS among American-based immigrant Nigerian women who have experienced polygamy in rural Nigeria" I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

***By signing this Confidentiality Agreement I acknowledge and agree that:***

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

***Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.***

**Signature:** **Date:**