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Perceptions about Sexually Transmitted Diseases in Akwa Ibom State of Nigeria: A Qualitative Study of Young Adults Age 18-24

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Abstract

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by

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MA, Saint Mary's University of Minnesota, 2007

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Dissertation Submitted in Partial Fulfillment

of the Requirement for the Degree of

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Abstract

Despite the ongoing investments in programs to increase sexual health awareness among young adults globally, many youths remain vulnerable to sexually transmitted diseases (STDs). Two-thirds of all STDs occur among youths engaging in high-risk sexual behaviors, which put young adults at higher risk of STDs and can result in serious consequences including infertility. Additionally, the social consequences of STD affect families and communities. While a need exists for increased public awareness of STDs among young adults, extant intervention and prevention activities should be informed by a cultural perspective, including the integration of community and government roles. The purpose of this social ecological study was to investigate the perceptions of STDs and the potential factors responsible for the increased frequency of STDs based on the lived experiences of 20 young adults with STDs in Akwa Ibom State, Nigeria. Through a qualitative approach using a phenomenological research design, this study employed semi-structured interviews, and the resultant data were analyzed and coded. The findings indicated that college-aged students increasingly engaged in sexually risky behavior with multiple sexual partners for financial gain and power. Additionally, while institutions promoted abstinence as an effective strategy to reduce STD infections, the findings indicated a strong relationship between the phenomenon and individual interconnectedness with the larger society. Because the sexual behavior of young adults in Akwa Ibom State, Nigeria, is influenced at multiple ecological levels, effective and sustaining culturally appropriate STD interventions must involve the larger society including young adults in all stages of intervention development and implementation.

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There is no mountain that cannot be made plain, no negative thing that cannot be reversed, no limitation that cannot be cancelled, no circumstance that cannot be crushed by Faith of possibilities in God. These possibilities inspire my abilities each day as it becomes more meaningful and practical that I can do all things through Christ who strengthens me. I am eternally grateful to God for those words of possibilities. Barriers, blocks, obstacles, and problems became my personal teachers during this journey. I dedicate this study to the young adults without a voice to combat their dream killer, STDs. Let me be your voice and I will scream for you; together we are no more victims, but rather victors and social change agents.

To my family: my wife, Mfon Archibong, your prayers and immense supports throughout this journey uplift my spirits daily to press on. To my mom, Hannah Archibong, I just adore your strength. And to my sisters and my twin brother, thank you all for your continuous prayers which bombarded the heavens on my behalf. To my sons and daughter, I couldn't have asked more from you all; you all bear my absence, whining, and most times talking to myself.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

Despite the ongoing investments in programs to increase sexual health awareness among young adults globally, many remain vulnerable to sexually transmitted diseases (STDs; Udofia, Akwaowo, & Ekanem, 2012). Two-thirds of all STDs occur among youth (Nnoruka & Ezeoke, 2005). This estimate partially results from the high-risk sexual behaviors of young adults, including engaging in sexual activities without using protection, such as condoms, as well as having multiple sex partners. These risky behaviors put young adults at higher risk of STDs, resulting in serious consequences associated with infection, including infertility (Anorlu Oluwole, Abudu, & Adebajo, 2005; Nnoruka & Ezeoke, 2005; Panchaud Singh, Feivelson, & Darroch, 2000; Udofia et al., 2012).

While a need exists for increased public awareness of STDs, including human immunodeficiency virus (HIV), an even larger need persists to approach intervention and prevention activities from a cultural perspective, including the integration of governments' roles. In many developing countries, issues of sexual and reproductive health among young adults are not a government priority (Onokerhoraye & Maticka-Tyndale, 2012). Application of social ecological model (SEM) interventions can achieve outcomes that are more favorable for young adults with STDs.

This chapter introduces the problem and delineates specific sexual risk factors as related to the research questions presented. The chapter begins by providing relevant background information and a problem statement. I then explain the study and the

research questions. After that, I present a description of the theoretical framework, emphasizing the factors exacerbating the problem of STDs among young adults. Details the operational definitions, assumptions, limitations, and delimitations also appear in this chapter. Finally, I present the significance of the study, including social change implications.

Background of the Study

Globally, most sexual health intervention for young adults tends to focus on education and prevention (Rietmeijer, 2013). Yet, fewer interventions include a focus on creating environments that enable young adults with lived experiences to express their fears, concerns related to STD treatments, and other sexual health issues without cultural conflict or stigmatization (Green, 2003). Researchers conducting studies in West Africa on STDs have indicated that young adults do not discuss sexual health problems because the behavior goes against established moral institutions (Kaufman, Clark, Manzini, & May, 2002, 2004; Mahy & Gupta, 2002).

A larger need exists to tie the prevention and intervention of STD programs to traditional and community establishments, such as churches and local men's and women's organizations. For example, with HIV infection affecting 30% of young adults in Africa, governments have made an increased effort to tackle this problem (World Health Organization [WHO] 2008). Individuals rarely discuss sexual health in African schools or homes, and little or no reproductive health education exists (Mahy & Gupta, 2002). However, researchers could explore cultural and community-focused approaches

to appropriately provide holistic sex education aimed at significantly reducing the percentage of young adults (roughly 30%) affected by the STD pandemic in Africa.

To date, researchers have not adequately addressed the issue of STDs in Nigeria (Anorlu et al., 2005). Recently, the Nigerian government has begun to view STDs as a community health problem; however, each state has the right to make its decisions regarding implementation of programs on the topic (Onokerhoraye & Maticka-Tyndale, 2012). Most states, given the predominance of traditional and religious values, limit the discussion of sexuality in public and religious places (Onokerhoraye & Maticka-Tyndale, 2012). The inconsistency of government interventions creates further obstacles to the achievement of STD prevention outcomes in most states, including Akwa Ibom State

Given their limited resources, states tend to place a lower priority on addressing reproductive health issues among young adults (Onokerhoraye & Maticka-Tyndale, 2012). The consequent effect is that families and community organizations rarely raise the topic of sexuality (Nnoruka & Ezeoke, 2005; Onokerhoraye & Maticka-Tyndale, 2012). Akwa Ibom State, despite recent increases in oil revenue, still lags in making sexual education for young adults a priority investment.

Ignoring the effect of STDs in Akwa Ibom State not only affects reproductive health but also ultimately increases mortality and morbidity rates in the state (Udofia et al., 2012). According to Onokerhoraye and Maticka-Tyndale (2012), Nigeria has 4.6 million people infected with either STDs or HIV/AIDS, of whom more than 2.7 million are young adults between the ages of 18 and 24 (Onokerhoraye & Maticka-Tyndale, 2012). Appropriate culturally- and socially-sensitive services aimed at addressing youths'

perception of STDs could significantly reduce the prevalence of STDs in Akwa Ibom State. In this study, I examined the perceptions of STDs in Akwa Ibom State and potential factors contributing to the recent increase in STDs among young adults (Kaufman, Clark, Manzini, & May, 2002).

This study was necessary because the available research does not seem to have an effect on the incidence of STDs in Nigeria. Researchers have conducted several studies on STDs and reproductive health, investigating the sexual behaviors of youth following the outbreak of the HIV pandemic (Kaufman, Clark, Manzini, & May, 2002; Mahy & Gupta, 2002; Nnoruka & Ezeoke, 2005). Researchers have also investigated sexual behavior and its outcomes, often using the same interview questions (Mahy & Gupta, 2002; Olaseha, Ajuwon, & Onvejekwe, 2004; Onokerhoraye & Maticka-Tyndale, 2012). Many authors have targeted behavior and access to treatment in order to assess individual risk factors for STDs among the infected and uninfected (Olaseha et al., 2004). In addition, many authors have concentrated on specific populations to describe the high risks of STDs (Panchaud et al., 2000). Furthermore, researchers have investigated the application of institutional policies toward reducing the STD pandemic (Panchaud et al., 2000). However, data on STDs globally show no sign of reduced incidence, especially in developing countries (Kaufman et al., 2002; Onokerhoraye & Maticka-Tyndale, 2012; Panchaud et al., 2000), so the trend continues to pose a public health challenge (Udofia et al., 2012).

In Nigeria, STDs remain a serious problem among young adults, and no community or institutional policy exists to target young adults for treatment and

prevention of STDs (Onokerhoraye & Maticka-Tyndale, 2012). The Nigerian Federal Ministry of Health (2004) determined that young adults in Nigeria lacked the necessary skills and information to maintain healthy behavior that would enable them to avoid contracting STDs. The Nigerian Federal Ministry of Health's 2010 report indicated similar concerns and even more severe health effects, based on the increased incidence of HIV across the country (Onokerhoraye & Maticka-Tyndale, 2012).

In Nigeria, gender inequality affected sexuality and reproductive health (Anorlu et al., 2005; Udofia et al., 2012). Young adult females are reported to be the group most vulnerable to STDs (Anorlu et al., 2005; Jombo, Egah, Banwate, & Opajobi, 2006; Onokerhoraye & Maticka-Tyndale, 2012). The social construction of gender roles has thus brought about inequality in every society (Green, 2003; Peltzer & Oladimeji, 2004).

Nigerian men tend to control women's sexuality as they have the right to determine the terms of the relationship (Anorlu et al., 2005). Nigerian women are powerless in negotiating sexual activities, condom use, or other risk factors leading to a high risk of STDs (Oyelese, Onipede, & Aboderin, 2005). Culturally, Nigerian women are nevertheless considered responsible for causing STDs and are blamed for an infection if it occurs, despite their lack of power in negotiating sexual activities (Aboyeji & Nwabuisi, 2003; Jombo et al., 2006; Oyelese et al., 2005).

Women's inability to make their reproductive health decisions is a reflection of their alienation or classification. This social construction of sexuality and reproductive health in Nigeria explains why most health services for STDs are adult-oriented and why young adults are most vulnerable to STDs (Udofia et al., 2012). The lack of age-

appropriate health services has contributed to the recent increase in STDs among young adults. Onokerhoraye and Maticka-Tyndale (2012) proposed that policymakers and social workers should integrate HIV prevention into the local culture to be effective. Similarly, Olugbenga-Bello, Adekanle, Ojofeitime, and Adeome (2010) emphasized the integration of sex education in schools, homes, and religious settings.

However, not many traditional institutions have embraced the cause of integrating sex education into the culture. Olugbenga-Bello et al. (2010) indicated that limited resources and the government's perceived inability to invest in sex education and reproductive health without creating conflict with traditional institutions have complicated efforts to combat STDs. In this study, I applied the SEM to examine approaches to STDs in Nigeria holistically and to develop community-based interventions aimed at addressing the factors that influence the recent increase of STDs, including HIV (Kaufman et al., 2004).

Problem Statement

Researchers tend to focus on individual-level behaviors as correlates of STDs in Nigeria (Olugbenga-Bello, Ajuwon, & Onvejekwe, 2010). Researchers have not investigated the association of increased STDs with individual and environmental factors fully. However, evidence shows the interconnectedness of individual and environmental factors (Aboyeyi & Nwabuisi, 2003; Olugbenga-Bello et al., 2010). Effective approaches leading to health choices should be holistic and in alignment with all levels: individual, interpersonal, organizational, community, and governmental (Ungar, Ghazinour, & Richter, 2013). A need exists to investigate both the individual and environmental

contributions to the recent increase of STDs in Akwa Ibom State. Thus, the problem that I addressed in this study was the perception of STDs among young adults and the factors potentially responsible for the escalation of STD transmission in Akwa Ibom State.

Commonly reported STDs or infections include gonorrhea, syphilis, hepatitis B, human papilloma virus, and HIV. These infections are transmitted through the exchange of semen, blood, and other body fluids, or by direct contact with the affected body areas of people with STDs (Da Ros & Schmitt, 2008). Da Ros and Schmitt (2008) observed that "adolescents and young adults (15-24 years old) make up only 25% of the sexually active population, but represent almost 50% of all newly acquired STDs" (p. 1).

These studies have provided ample evidence that STDs present a serious health problem among young adults globally. To date, the issue of STDs has not been well addressed in Nigeria (Anorlu et al., 2005).

The case of Akwa Ibom State of Nigeria is significant because an increased incidence of STDs exists among young adults, who are vulnerable because of their ignorance (Anorlu et al., 2005). Ekanem, Ekott, Udo, Efiok, and Out (2012), in a study conducted in Akwa Ibom State, confirmed that the infection rate among pregnant women age 15 to 19 was 74.3%, compared to 70.2% for those age 20 to 24. Similar studies conducted elsewhere in Nigeria have indicated that people age 15 to 30 are most vulnerable to STDs (Aboyeyi & Nwabuisi, 2003; Enabulele & Kemajou, 2006; Jombo et al., 2006; Olugbenga-Bello et al., 2010; Oyelese et al., 2005).

This increased infection rate among youth may result from a lack of education. In my seven years' experience with youth in Akwa Ibom as part of a medical mission, the

most consistent questions that young adults asked related to STDs. Questions included what STDs were, how they were transmitted, and how they could be prevented. Increased understanding of STDs among Nigerian young adults is needed to create effective awareness of their associated health risks (Olugbenga-Bello et al., 2010).

Reports in the literature and conversations with many young adults confirm a widespread lack of knowledge regarding STDs (Onokerhoraye & Maticka-Tyndale, 2012). Udofia, Akwaowo and Ekanem (2012) confirmed the high prevalence of STDs in Akwa Ibom State compared to the other 35 states of Nigeria. According to my review of the available literature, no study based on individual-level and environment has specifically targeted young adults (ages 18 to 24), who are the most vulnerable population in the state because of their early engagement in unsafe sexual activities. Researchers have predicted that the number of young adults engaging in unsafe sexual activities will continue to increase if this issue is not addressed (Nnoruka & Ezooke, 2005; Olaseha et al., 2004; Oluwole et al., 2005; Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012). Therefore, a need existed to investigate the factors potentially leading to the current increase of STDs in Akwa Ibom State.

Nature of the Study

This study followed a qualitative approach using a phenomenological method aimed at understanding the meanings of events and human interactions in a natural setting. A semistructured interview protocol was the primary information collection method. I interviewed young adults (ages 18–24) enrolled in college at Akwa Ibom State Polytechnic on a one-on-one basis to gain an understanding of their distinct individual

experiences or shared experiences with STDs. I expected all college participants to be able to read and write in English, as interviews were in English. Akwa Ibom State Polytechnic is located in the center of the state, and its students come from the 31 local government areas in the state. I interviewed 20 students, equally divided between males and females without regard to social status, to learn about differences and commonalities in young Nigerian individuals' distinct experiences with regard to the increase of STD incidence.

I used a convenience sampling strategy to select participants for interviewing. I posted flyers on the campus at places where students gather (including the school clinic) and put a notice in a student newspaper that included my name and phone number. I also provided a short description of the study along with a sentence assuring participant confidentiality. Once potential participants contacted me and indicated their willingness to participate in the study, I then gave them the full study information and had them sign a consent form. I developed an interview instrument with Walden University approval, as required, and tested it with a pilot testing design.

Research Questions

This study was guided by the following four research questions:

RQ1: What beliefs do Nigerian young adults (ages 18 to 24) have regarding STDs?

RQ2: What role does the cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State?

RQ3: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State?

RQ4: How do males and females differ in their perception of STD transmission?

There was one additional subquestion:

RSQ1: How can your experience help prevent STD among young adults in Akwa Ibom State?

The answers to and my interpretations of these questions assisted in gathering the information that could lead to the development of culturally sensitive sex education programs. The information that I gathered from the interviews led to an enhanced understanding of factors such as inconsistent condom use, the cultural beliefs, and the lack of a consistent message on STDs, all of which are potentially responsible for the current increase in STDs among young adults in Akwa Ibom State.

Purpose of the Study

The purpose of this study was to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among the young adults in Akwa Ibom State of Nigeria, using the SEM. An understanding of factors leading to the increased incidence of STDs could lead to safer sexual activities and to more effective STD prevention among young adults. This information could also help the community understand the risks for young adults' health associated with the phenomenon.

Udofia et al. (2012) performed a quantitative study in Akwa Ibom State that shed light on the problem of increasing STD rates among young childbearing women. The authors found that 3% of the pregnant women surveyed and nearly 6% of mothers were

responsible for transmitting HIV to their children (Udofia et al., 2012). Akwa Ibom State has a total population of five million people of diverse cultures, of whom 20% are young adults age 18 to 24 (Udofia et al., 2012). The statistics suggested that STDs and HIV/AIDS are major public health problems for this state. Udofia et al. (2012) observed that young adults' early engagement in unsafe sexual activities was a risk factor for contracting STDs, including HIV in Akwa Ibom State. Likewise, Da Ros and Schmitt (2008) identified early unprotected sexual activities among young adults as the leading factor in the recent increase of STDs.

There remained several significant gaps in the literature leading to the present study. Neither Da Ros and Schmitt (2008) nor Udofia et al. (2012) investigated why young adults were engaging in risky sexual behaviors. These factors may include a lack of early sex education, ignorance, lack of access to treatment centers, and stigmatization of infected individuals (Scott et al., 2011). These factors might exacerbate the problem or discourage young adults with STDs from seeking treatment. Additionally, no researchers have assessed possible factors based on an environmental perspective. According to Da Ros and Schmitt (2008), risky sexual behavior among the targeted population remained a complex challenge. However, the effect of increased STD prevalence on the workforce and on social networks has not been investigated. The role of culture in the recent increase of STDs among young adults also remained unstudied.

To address these gaps in the literature, I investigated the factors potentially responsible for the recent increase by examining young adults' experiences from social and environmental perspectives. The study outcomes could shed light on the underlying

reasons for the recent increase of STDs and could assist the development of STD prevention programs, such as sex education and community campaigns.

Onokerhoraye and Maticka-Tyndale (2012) proposed that HIV prevention should be integrated into the local culture to be effective. Similarly, Olugbenga-Bello et al. (2010) emphasized the integration of sex education in schools, homes, and religious settings. The importance of traditional establishments' willingness to participate in sexual health education programs underscores the influence of sexual health decisions and their effect among young adults in Akwa Ibom State. Familiarity with the culture and subculture experienced by the target population is important in order to deliver culturally sensitive and appropriate STD prevention programs.

The extent that young adults do learn to prevent STDs could lead to real solutions that reduce STD transmissions. The outcome of this empowerment will benefit not only young adults but also the entire Akwa Ibom State and potentially Nigeria at large. It is imperative for these solutions to be effective that they reflect young adults' voices, lives, and futures. The sustainability of this campaign around community ownership will establish a better understanding of health risks associated with STD transmission and the need for prevention. Thus, I proposed, as a solution for STD reduction, young adults' participation in the actual campaign against STD transmission supported by resources. This solution could significantly reverse the increasing rate of STD transmission, which was the focus of this study. The resultant outcomes of young adults' involvement and empowerment make the investment of admittedly limited resources necessary to address this state's public health issues (Kirby, 2001). The resources aimed at promoting

abstinence, culturally appropriate sex education, safer sexual behaviors, and condom use could reduce STD transmission significantly while enabling the young adults to make healthier sexual decisions.

Therefore, obtaining information on how young adults understand the causes and preventive measures necessary to avoid STDs could lead to a reduction in mortality and morbidity associated with STDs. Knowledge obtained from this study and integrated into community values could assist with the development of effective, community-friendly STD education and prevention programs. Thus, the study has implications for positive social change.

Framework of the Study

Conducting an investigation of the factors leading to the current increase in STDs among young adults in Nigeria requires an established framework. Moreover, to gain a better understanding of young adults' experiences regarding STDs, it was necessary to apply a framework that could effectively interpret the young adults' experiences and their environment. Incidence of STDs is tied to individual, interpersonal, intrapersonal, and societal values (Gant et al., 2012; Ungar et al., 2013). The reviewed literature amply provided documentation of the high prevalence of STDs among young adults in Nigeria; however, little or no research was available about the factors that may be responsible for the recent increase in STD incidence from the social ecological perspective. I chose the SEM to assist in facilitating and organizing information regarding youths and their interconnectedness with their environment (Schwartz, Tuchman, Hobbie, & Ginsberg, 2011).

Bronfenbrenner (1979) conceptualized a given behavior as the result of multiple levels of influence, which, when taken together, represent the total social environment (Ungar et al., 2013). The SEM is a holistic approach that conceptualizes an individual's environment as comprising the intrapersonal, interpersonal, and community or cultural levels and further assesses individual behavior based on institutional and policy perspectives. Onokerhoraye and Maticka-Tyndale (2012) stressed the vital role that the community plays in disease prevention. Because of its holistic approach, I chose the SEM framework to address young adults' perception of STDs in Nigeria. I believe that integrating the information gathered from this study into community values can help with the development of effective, culturally centered community prevention of STDs.

Definition of Terms

Condom use: The use of lubricated or nonlubricated prophylactic penile barrier materials (also known as rubbers) during an engagement in vaginal penile sexual intercourse (Hensel, Rosenberg, Novak, & Reece, 2012).

Endemic: The habitual presence of a disease within a given geographic area. The disease rate is constant, always existing and never changing course (Gordis, 2009).

Environment: All the external conditions, circumstances, and influences surrounding and affecting the growth and development of an organism or community of organisms (McKenzie, Pinger, & Kotecki, 2005).

Epidemic: The occurrence of disease or a group of illnesses in a community that increases beyond normal expectancy (Gordis, 2009).

Individual-level: A person's psychological, and situational traits, such as personality, education, income, and age, that are likely to contribute to the person becoming vulnerable to health risks (Ungar et al., 2013).

Interpersonal: Close relationships that may affect an individual's behavior; for example, peers, partners, and family members (Ungar et al., 2013). In this study, the interpersonal level referred to interaction with a person's immediate social circle that could increase exposure to health risks.

Intrapersonal: Relationship occurring within the individual mind; for example, someone having an awareness of how he or she affect the community (Ungar et al., 2013).

Perception: Knowledge about events (Johnson, McCaul, & Klein, 2002); for example, knowledge of the participants about themselves, STDs, and their social environment.

Sexually transmitted diseases (STDs): Acute diseases of chlamydia trachomatis, Neisseria gonorrhea, Treponema pallidum (syphilis), Trichomonas vaginalis, and bacterial vaginosis as well as chronic viral infections, such as herpes simplex and human papilloma virus, that are transmitted through sexual intercourse (Zenilman, 2001). STDs are also referred to as sexually transmitted infections (STIs) in the literature and in discourse.

Social construction: How society groups people based on race, gender, education, religion, and sex. This norm underscores how certain groups have more social privilege than others (Anorlu et al., 2005; Udofia et al., 2012).

Social determinants of health (SDH): "Conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The social determinants of health are mostly responsible for health inequities—the unfair and avoidable differences in health status" (CDC, 2010, p. iv).

Social ecological model (SEM): A model that considers the complex interrelationship between many factors, such as individuals, relationships, community, and the larger society. The SEM allows a researcher to address the factors that put people at health risk from a holistic perspective (Bronfenbrenner, 1979; Ungar et al., 2013).

Social structural factors: Features of the environment outside the individual's control that may either facilitate or serve as a barrier to a person's ability to prevent the acquisition of STDs or HIV (McCree, Jones, & O'Leary, 2010).

Societal factors: Societal factors or public policies that create a climate in which certain health risks are encouraged or inhibited. These factors include socioeconomic factors, education, cultural norms, health, and government policies (Ungar et al., 2013).

Assumptions

I assumed that the individuals' behavior, peer pressure, culture, and institutional roles largely contributed to the increasing STDs among young adults (Aalsma, Tong, Wiehe, Tu, 2010; Enabulele, & Kemajou, 2006; Rowland, Myers, Adamski, & Burnett, 2013; Stephenson, 2009). According to Rowland et al. (2013), individuals' frequency of sex and early engagement in unprotected sexual activities, such as the failure to use condoms and other contraceptives, significantly affect STD transmission. Environmental

risk factors, such as community institutions and government policies associated with transmission of STDs, have an effect on the increase in STDs (Stephenson, 2009; Rowland et al., 2013).

Factors such as inconsistent condom use, the availability of condoms, cultural beliefs, and the lack of a consistent message on STDs can potentially perpetuate risky sexual and social behaviors (Anorlu et al., 2005; Ford & Browning, 2010; Pollack, Boyer, & Weinstein, 2013; Rietmeijer, 2013; Shafii, Stovel, & Holmes, 2007). Interventions designed to reduce STDs among the young adults cannot directly control individual health risks because of individual freedom of choice, but they can help educate young adults' choices of behaviors. A final assumption was that participants understood the interview questions administered to them by the designated trained person and answered interview questions honestly to the best of their abilities.

Limitations

This study had several limitations. For example, the small pool of participants made it difficult to ensure a representative sample, and this sample issue limited generalizability. The method of recruitment may not have attracted an ethnically and socioeconomically diverse sample, as only participants with a college education who spoke and wrote English fluently participated in this study. Despite the assurances of confidentiality, persons who have contracted STDs or experienced physical or sexual abuse may have been reluctant to participate. The selection of participants age 18 to 24 did not capture the experiences and attitudes of younger teenagers, who often make key decisions regarding sexual activity that affect their future lives. This limitation was

necessary, as it would be difficult to gain permission to interview youths under age 18 considering the social stigma of STDs in Nigerian culture.

Delimitations

The sample population was delimited to sexually active young adults between the ages of 18 and 24 in Akwa Ibom State of Nigeria. The sample population was limited to young adults enrolled as students at the Akwa Ibom State Polytechnic. I did not consider students above or below the study age limit for this study.

Significance of the Study

The significance of this study lay in its providing information regarding perceptions and factors potentially influencing the recent increase in STD incidence among Nigerian young adults. This study could help government and educational institutions understand young adults' perception of sexual and reproductive health issues. As a result, the information could help officials construct effective holistic prevention and intervention approaches that are appropriate for the particular culture, community, and age group regarding STDs among young adults in Akwa Ibom State.

STDs are preventable when individuals take protective measures. In addition, the health risks associated with STDs must be widely known, access to treatment centers must be provided, and stigmatization of patients must be eliminated through confidentiality protocols that safeguard privacy (Udofia et al., 2012). Researchers have shown that the various health risks associated with STDs include infertility, infection of newborns, cervical cancer, and HIV/AIDS, among others (Onokerhoraye & Maticka-Tyndale, 2012). Ignoring the role of youth in the prevalence of STDs in Akwa Ibom State

not only affects reproductive health but also ultimately increases the region's mortality and morbidity rates (Udofia et al., 2012).

Social Change Implications

This study of the perception of STDs among young adults and potential factors leading to the increased STDs has public health and social change implications. In recent years, public health intervention experts focused more on HIV intervention than on the STD intervention needed to reduce STD transmission, including HIV (Da Ros & Schmitt, 2008). Stigmatization of sexual health issues related to traditional and cultural values has led to a lack of political will to tackle STD intervention in many countries, including Nigeria (Oyelese et al., 2005).

This study served to demonstrate the effect of STD infections and the associated risks for young adults who are most vulnerable to these diseases. Knowledge obtained from this study could assist young adults in engaging in safe sexual activities including condom use, avoiding unwanted pregnancies, self-advocacy in regard to safe sex, and accessing treatment without stigmatization. The integration of age-appropriate and culturally specific sex education into community values could assist in the development of effective community-friendly STD education and prevention programs.

The positive social change implications of this study include obtaining knowledge useful for community health workers and other researchers seeking to improve youths' reproductive health. Results from this study could guide the development of sexual health education courses and comprehensive interventions for at-risk young adults. The results could also help determine a basis for the development of better communication and

negotiation skills among young adults to enhance decision-making and sustain safe sex behavior.

Summary

The integration of appropriate sex education into the community establishments is far more complicated than simply creating sex education policies. For example, Nigerian communities are supportive of sex education, but only under certain conditions, such as a clear emphasis on abstinence from sex outside marriage or discouragement of homosexual activities (Olugbenga-Bello et al., 2010). However, these debates obscure the far more important issue of providing culturally responsive sex education aimed at combatting the increase in STDs among young adults in Nigeria. Likewise, the involvement and empowerment of young adults' voices in the campaign against STD transmission underscores the critical and sustainable solution needed to curb the increasing rate of STDs among young adults in Akwa Ibom State.

The study results could inform the development of community-sensitive educational materials. The discovery gaps in the existing literature have prompted this investigation regarding perceptions of and potential factors responsible for the increase in STDs among young adults in Akwa Ibom State. Chapter 2 details a review of the relevant literature and existing research gaps.

Chapter 2: Literature Review

Introduction

The purpose of this study was to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among the young adults in Akwa Ibom State of Nigeria, using the SEM. Although many researchers have examined sexual and reproductive health issues among young adults globally (Da Ros & Schmitt 2008), no researchers have investigated the increasing rates of STDs in Nigeria via young adults' perceptions and knowledge of STDs from a social environment perspective. Thus, this qualitative approach involved a phenomenological design and an SEM perspective to investigate the factors potentially responsible for the recent increase in STDs among Nigerian young adults, specifically in Akwa Ibom State.

This literature review presents current research on the perceptions of young adults regarding STDs and the recent increase in the incidence of STDs. This literature review section is divided into four major sections. In the first section, I cover literature search strategies. In the second section, I examine the main themes that emerged from this study: (a) young adult vulnerability to STDs, (b) young adults and STD transmission, (c) knowledge of STDs among young adults, (d) STDs vulnerability perceived differently among male and female young adults, (e) health risks associated with STDs, (f) barriers to contraceptive use among Nigerian young adults, (g) stigmatization and discrimination, and (h) the theory of SEM. The third section includes literature regarding the theoretical framework guiding this study, and the fourth section includes a review of reproductive health education programs in Nigeria.

Literature Search Strategy

The literature search occurred by searching EBSCO Host and Medline databases to obtain information regarding the emerging factors potentially responsible for STD transmission among young adults and in the Akwa Ibom State of Nigeria. Other websites searched were those of Family Health International (FHI), World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Joint United Nations Programmes on HIV/AIDS (UNAIDS), United Nations Population Fund, U.S. Department of Health and Human Services, and Nigerian Federal Ministry of Health. Almost all of the literature reviewed was published between 2000 and 2014. However, the study included carefully selected literature published in 1979 in order to demonstrate the fundamental theory chosen for this study.

The keywords used for searching were: *young adult sexually transmitted diseases, sexually transmitted infections, adolescent reproductive health, HIV/AIDS, youth reproductive health programs in Africa, school-based reproductive health education/intervention, unwanted pregnancies, unintended pregnancy and socioeconomic status, teen pregnancy in Nigeria, teen pregnancy in West Africa, youths' unsafe sexual activities,* and *social ecological model* and *STDs intervention*.

Anticipated Themes

In this study, the researcher covered the following anticipated themes.

Young Adult Vulnerability to STDs

Approximately 1 million people contract STDs every day (WHO, 2013). Nigerian young adults aged 18–24 are disproportionately affected by STDs and are vulnerable to

grave health problems into their adulthoods (Khan, Berger, Wells, & Cleland, 2012; Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012; Voisin & Bird, 2009). Studies conducted on the prevalence of STDs among young adults indicated increasing vulnerability, and prevention continues to be a global public health challenge despite various interventions (Crosby & Danner, 2008; Onokerhoraye & Maticka-Tyndale, 2012; Staras, Cook, & Clark, 2009).

Young adults in developing countries such as Nigeria have a much higher rate of STDs compared to their counterparts in other developing and developed countries (CDC, 2008; Green, 2003). Green (2003) pointed out that young adults are exposed to early sexual activities, and the lack of sex education to provide appropriate information increases the young adults' vulnerability to acquiring STDs (Crosby & Danner, 2008; Green, 2003; Voisin & Bird, 2009). With a total population of 148.1 million people, Nigerians aged 10–24 make-up an estimated one-third of the country's total population (National Population Commission, 2009). This sizable percentage of young adults underscores the significant effect of increasing STD rates for young adults and the general effects of STD rates on Nigerian development.

According to the WHO (2013) comprehensive study on STDs, every year an estimated 5 million people contract one of the following four STDs: chlamydia, gonorrhea, syphilis, or trichomoniasis (WHO, 2008). Most of the STDs contracted are present without symptoms, and some STDs can increase the risk of HIV acquisition (Onokerhoray & Maticka-Tyndale, 2012; Udofia et al., 2012). Panchaud et al. (2000)

suggested that STDs and associated health risks have grievous consequences on young adults if not tackled with sustainable intervention.

Sexually transmitted diseases have profound health effects, including on reproductive health, and rank among the top five disease categories for which young adults and others seeking health care (CDC, 2006; Farley, 2006; Newman & Berman, 2008; WHO, 2013). In Africa, the estimated total number of new cases of the four STDs in 2008 was 92.6 million (WHO, 2008). The prevalence of STDs led to drug resistance constituting a major threat to STD intervention globally, especially in the case of treating gonorrhea (WHO, 2013). According to a recent report from the WHO (2013), an increase of STDs in Sub-Saharan Africa exists. However, the report also noted a decrease in STDs in South Africa and neighboring countries (WHO, 2013).

The acquisition of STDs in developing countries such as Nigeria is often assumed to be the result of individual-level behavior (Olugbenga-Bello et al., 2010). Nigeria has strong cultural practices that influence young adults' cultural perceptions and individual-level behaviors concerning critical issues such as STD prevention or contraction (Olugbenga-Bello et al., 2010). However, studies have shown the interconnectedness of individual-level behavior with the social environment (Ungar et al., 2013). For this reason, a culturally appropriate intervention that integrates the social and ecological perspective is needed to address the increased incidence of STDs among the young adults who are most vulnerable to this phenomenon.

Young Adults and STD Transmission

The United Nations defined young adults as people between the ages of 15 and24 (WHO, 2013). Young adults are energetic and curious about the social environment, including the exploration of sexuality (Onokerhoraye & Maticka-Tyndale, 2012). Nearly half of the world's population of youth under the age of 25 are vulnerable to STDs, and with that, two-thirds of that youth population live in Sub-Saharan Africa, including Nigeria (Khan et al., 2012; Onokerhoraye & Maticka-Tyndale, 2012).

Factors such as biological culture and socioeconomic status influence young adults' vulnerability to STD transmission in Nigeria (Olugbenga-Bello et al., 2010). These individuals are more likely to experiment with risky behaviors that promote STDs and HIV transmission such as early sexual activities including multiple sexual partners and inappropriate or lack of use of condoms and other contraceptives (Beadnell et al., 2005). Other reasons for young adults' increased vulnerability to STDs include the use of drugs and engaging in sex for economic reasons (Olugbenga-Bello et al., 2010; Onokerhoraye & Maticka-Tyndale, 2012).

The United Nations Population Fund (2003) noted that the large proportion of young adults in the Nigerian population underscored the importance of young adults in the economic, political, and social development of Nigeria (Olugbenga-Bello et al., 2010; Udofia et al., 2012). Sexual and reproductive health risks, however, interfered with young adults' potential (Olugbenga-Bello et al., 2010). To remove these barriers to the realization of Nigerian young adults' potential, specifically in Akwa Ibom State, a

comprehensive strategy, such as an SEM framework, is necessary to decrease STD transmission.

Knowledge of STDs Among Young Adult

The majority of young adults acquired STD symptoms without knowing about STDs and methods of transmissions (Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012; WHO, 2013). In the study conducted in Akwa Ibom state of Nigeria by Udofia et al. (2012), 80% of the women of childbearing age indicated less knowledge about common types of STDs that include chlamydia, gonorrhea, syphilis, and trichomoniasis. Researchers have suggested that 15–25 year olds, who represented 25% of young adults vulnerable to STDs, had a new STD infection rate of 50% (Aalsma et al., 2010; Crosby & Danner, 2008; Da Ros, & Schmitt, 2008; WHO, 2013).

Other researchers have compared older adults with young adults aged 15–24 years, finding that young adults are more vulnerable to acquiring STDs (Barrow, Newman & Douglas, 2008; Jones & Haynes, 2006). Limited education about STD transmission and associated health risks contributed to higher infection rates among youth (Barrow et al., 2008; Jones & Haynes, 2006). Although behavioral, biological, and cultural reasons were cited as contributing factors, lack of or limited sex education specifically in developing countries, like Nigeria, primarily caused the recent increased STD rates (CDC, 2009; Olugbenga-Bello et al., 2010; Udofia et al., 2012).

Ajuwon, Olaleye, Faromoju, and Ladipo (2006) conducted a study in Lagos and pointed out the increased awareness of STDs among young adults in Nigeria from 48.0–52.0% to 87.8%–92.0% since 2006. Despite the increase in STD awareness, education

about STD transmission and associated health risks has remained low mostly in rural areas where cultures prevent open discussion of STDs (Asekun-Olarinmoye, 2011; Oyeyemi, Oyeyemi, & Abegunde, 2011). Nigeria, like many other countries, is culture bound, and as a result, Nigerians do not openly discuss issues surrounding sex.

Another issue is that school curricula do not incorporate sexuality education, and most young adults are left to fill in the gaps from peers who may not have the correct information (Oyeyemi et al., 2011). The lack of coordinated effort to educate the young adult systematically culminated in increasing STD rates among young adults in Nigeria (Dienye, 2011). According to a study by Udofia, Akwaowo and Ekanem (2012), conducted in Akwa Ibom State of Nigeria, limited knowledge that Nigerian young adults have about specific STDs and their strength and method of transmission further puts them at risk of acquiring HIV and other hazardous infections, including mother-child STD transmission. In a meta-analysis of literature, Newman and Berman (2008) concluded that STDs are a serious public health issue and require intervention, including customized sex and reproductive health education to address STDs among young adults.

Udofia et al. (2012) cited in their study conducted in Nigeria the importance of STD awareness among young adults as a primary factor in reducing the rate of STD infections in Akwa Ibom State and in Nigeria as a whole. Theorists proposed that STD education is more effective in the context of an open cultural and social environment, with interconnected segments known to affect each other (Newman & Berman, 2008). Ungar et al. (2013) argued that such theories should align with the needs of the targeted population, including the cultural and the social contexts of the environment. As a result,

effective STD intervention education should harmonize the whole context of the social environment, leading to an awareness of STD transmission and associated health risks.

In a cross-sectional study in Dar es Salaam, Tanzania, researchers assessed the knowledge of secondary school students (aged 11–19 years) about STDs (Mwambete & Mtaturu, 2006). The researchers used a semistructured questionnaire and a simple random sampling of 635 students to identify culture and religion as barriers to providing sex education to these students (Mwambete & Mtaturu, 2006). The authors also noted the political pressure that kept the discussion of sex education out of classrooms (Mwambete & Mtaturu, 2006). Students' curiosity, peer pressure, mass media, and the economy were reasons why students continued to be involved in unprotected sex, resulting in increased STDs among the students (Mwambete & Mtaturu, 2006).

In a similar study assessing self-reported sexual behavior among secondary school students in Kenya, Obonyo (2011) used the health belief model (HBM) and a descriptive cross-sectional survey instrument, adopting self-administered questionnaires to evaluate STD awareness among the students. The author concluded that a lack of culturally appropriate STD interventions in Kenyan schools functioned as a barrier to curtailing the spread of STDs among the students (Obonyo, 2011). While 98% of the students reported that they had heard about STDs, they could neither associate nor differentiate STD symptoms (Obonyo, 2011).

The majority of researchers agreed that school-based STD interventions should increase knowledge of sexuality and reproductive health, specifically among young adults (De Rosa et al., 2010; Olugbenga-Bello et al., 2010; Onokerhoraye & Maticka-

Tyndale, 2012; Udofia et al., 2012). The STD education structured for the young adult population should be holistic and integrate community values and beliefs into its strategies and execution (Udofia et al., 2012; Ungar et al., 2013). Despite this consensus, no researchers have examined these factors in conjunction with sound epidemiologic theory and with the mission of demonstrating the interconnectedness of individual-level factors, environmental factors, and the prevalence of STDs.

STD Vulnerability Perceived Differently by Male and Female Young Adults

In Nigeria, common STD infections tend to be higher among young females compared to young males (Cohen & Prinstein, 2006; Udofia, Akwaowo & Ekanem, 2012; De Genna, Feske, Angiolieri, & Gold, 2011; Olugbenga-Bello et al., 2010; Onokerhoraye, & Maticka-Tyndale, 2012). Given how STDs affect HIV rates, young female adults have a higher risk for HIV infection (Lee, 2008; Pollack, Boyer, & Weinstein, 2013; Rietmeijer, 2013; Rowe, Wang, Greenbaum, & Liddle, 2008). In a study conducted in Akwa Ibom state of Nigeria, Udofia et al. (2012) concluded that 70% of women of childbearing age considered STDs and associated health risks to be critical to their health compared to 30% of males. However, the authors concluded that young females are more likely to discuss the subject of STDs than males (Udofia et al., 2012).

In a separate study, Onokerhoraye and Maticka-Tyndale (2012) concluded that young males in Nigeria perceived STDs as a female disease. Mmari, Oseni, and Fatusi (2010) conducted a study in Lagos, Nigeria to investigate STD gender perception differences and concluded that young adult males are more likely to seek treatment for an STD than women, but usually from informal sources, such as traditional healers

(Adeyemi & Adekanle, 2012). In addition, young female adults are less likely to seek treatment through formal sources, such as clinics, because of shame (Mmari, Oseni, & Fatusi, 2010).

Nigerian men's perception of masculinity as being dominant over women exacerbates the transmission of STDs and HIV (Cohen & Prinstein, 2006; Stephenson, Winter, & Elfstrom, 2013). These perceptions have led to unsafe sexual practices and consequently increased the chances of young adults contracting STDs and HIV (Odimegwu & Okemgbo, 2008; Oladepo, Yusuf, & Arulogun, 2011). The masculinity culture encourages Nigerian men to dominate relationships with women such that women feel that they have no autonomy regarding their sexual life (Odimegwu & Okemgbo, 2008; Oladepo, et al., 2011). In this unbalanced relationship, a man refuses to use a condom, prevents a woman from using other forms of contraception, or even overrules her desire to disengage herself from unprotected sexual activities, thus increasing sexual health risks (Odimegwu & Okemgbo, 2008). The women's perceptions of their limited autonomy in male-dominated relationships make it almost impossible to use condoms to prevent STDs and unintended pregnancies (Association for Reproductive and Family Health, 2008; East, Jackson, O'Brien, & Peters, 2010; Odimegwu & Okemgbo, 2008).

According to the Guttmacher study of Nigerian youth, Sedgh et al (2009) concluded that young adult women are three times more likely to contract STDs, including HIV, and that 2.3% of young adult women have suffered from various STDs, compared to 0.8% of young adult men (Sedgh et al., 2009). In this respect, Nigeria ranks third in HIV infection, after India and South Africa (Sedgh et al., 2009). According to the

national health survey conducted in Nigeria, 62% of young adult women and about 43% of young adult men indicated no knowledge of STDs although they have engaged in sexual activities (Sedgh et al., 2009). Culturally appropriate sexual health information and services that align with the social-ecological perspective targeting the vulnerable population are needed to address the increase in STDs, including HIV in Nigeria, particularly in Akwa Ibom State.

Stigmatization and Discrimination

Researchers have also reported stigmatization and discrimination as factors constituting a serious impediment to reducing STDs and HIV in Nigeria (Ijadunola, Ijadunola, Esimai, & Abiona, 2010). The stigmatization and discrimination associated with STD diagnoses occur at two levels: societal and individual. At the societal or cultural level, the family or community rejects or isolates an individual (Arowojolu et al., 2002). At the individual level, individuals may experience feelings of worthlessness and stigmatization, which discourages young adults from reporting STDs to clinics for diagnosis and treatment (Ijadunola et al., 2010).

In a recent study conducted in Uyo, Udofia et al. (2012) established that women of childbearing age living with STDs and HIV tend to experience low self-esteem and anticipate stigmas because of their stress and diagnosis of the disease. Udofia et al. noted that about two-thirds of the young women failed to disclose their conditions to family members because of fear of stigmatization. In another study conducted in Oyo, Nigeria, by Olaseha et al. (2004), stigmatization stood out as an impediment to reporting STD

symptoms and subsequently to seeking treatment from a clinic; young women instead seek treatment from close family members or friends.

Health Risks Associated with STDs

Most young adults in Nigeria have experienced health risks associated with STDs (Anorlu et al., 2005). Young adults' lived experiences regarding STDs in Nigeria include signs of depression, unwanted pregnancy, shame, and stigmatization (Farley, 2006; Newman & Berman, 2008; Onokerhoraye & Maticka-Tyndale, 2012; Oyelese et al., 2005). Researchers assessing the health risks associated with STDs in Nigeria indicated high infertility, ectopic pregnancy, and low birth weight infants among young adult females (Anorlu et al., 2005; Udofia et al., 2012). Other health consequences include reproductive organ cancers and chronic pelvic pain (CDC, 2006; Khan et al., 2009), diseases which are thus prevalent among young people in Nigeria (Anorlu et al., 2005). In addition, Newman and Berman (2008) reported an economic burden, including treatment expenses and low productivity associated with STDs among young adults.

Barriers to Contraceptive Use Among Nigeria Young Adults

The use of condoms and other contraceptives among Nigerian young adults remains at a low rate despite increased awareness of contraceptive use (Bryan, Rocheleau & Robbins, 2005; Broman, 2007; Oyediran, Feyisetan, & Akpan, 2011). In a study of condom use among young adults in Nigeria, Oyediran, Feyisetan, and Akpan (2011) concluded that 72–90% of young adults indicated awareness of contraception. Some researchers associated low use with personal perceptions of contraceptives (Bryan et al., 2005; Broman, 2007). Oyediran et al. evaluated how different factors predicted condom

use among single males, aged 15--24 who had never been married. In the study, 43% of participants reported to be sexually active with a 15% use of condoms during their first intercourse.

The researchers concluded that the use of condoms was much lower among younger males in the sample (15—19 years), compared with older participants (20—24; Oyediran et al., 2011). The study revealed that young adults at the beginning of sexual exploration tend to be more vulnerable to STDs because of unprotected sex (Oyediran et al., 2011). The lack of culturally appropriate sexual health information and intervention contributes to low contraceptive use and results in the underestimation of the risks of unprotected sex (Arowojolu, Ilesanmi, Roberts, & Okunlola, 2002). This lack of appropriate information consequently led to the vulnerability of young adults to increased rates of STDs and unwanted pregnancy (Ijadunola et al., 2010; Kennedy, Nolen, Applewhite, Waiters, & Vanderhoff, 2007).

In a cross-sectional descriptive study conducted in Osun, Nigeria, Ijadunola et al. (2010) assessed how students in tertiary educational institutions in Osun State, Nigeria perceived their own risk of contracting STDs and/or HIV/AIDS. Additionally, Ijadunola et al. determined what factors influenced this personal risk assessment. The authors in their findings stated 27% of sexually active young adults (20–24 years old) used contraceptives, whereas 40% of the respondents (n = 405) reported having engaged in unprotected sexual activity (Ijadunola et al., 2010). Only 15% of students surveyed assessed their personal risk of infection as moderate to high; however, about 77% of students surveyed were at high risk of STDs, including HIV (Ijadunola et al., 2010). This

study further showed the grave consequences of the health risks and the complicated nature of reducing the transmission of STDs and HIV in Nigeria (Arowojolu et al., 2002; Ijadunola et al., 2010).

Unintended pregnancies are an outcome of unprotected sexual activities and low use of contraception among targeted youth aged 18–24 (Ijadunola et al., 2010). Most of the unintended pregnancies ending in termination occured via unsafe abortions (Anorlu et al., 2005). According to Sedgh et al. (2009), an estimated 1.3 million undesired pregnancies happened yearly among young adults in Nigeria, and half of the pregnancies resulted in serious health risks, including abortion. In a study conducted by the Guttmacher Institute, Sedgh et al. estimated that 54,000 young women died as a result of their pregnancy and associated complications. According to the researchers, injury and death resulting from pregnancy-related complications may be attributable to young adults' bodies (aged 18–24) being not fully developed at the time of pregnancy (Sedgh et al., 2009). Of this population of not-fully-developed young adults, 54% give birth by age 20 because of unprotected sexual activities (National Population Commission, 2004).

According to the Guttmacher study (as cited in Sedgh et al., 2009), the use of contraceptives among sexually active young adult women improved four percent from 1990-2003 (from 4% to 8%). The Guttmacher study (as cited in Sedgh et al., 2009) reported that about 33% of sexually active young women (aged 15-24) identified the use of contraception as necessary. However, the effect of contraceptives is slow to reduce STD and HIV health risks (Ijadunola et al., 2010).

Theoretical Framework

Intervention experts suggest that interventions developed with a workable theoretical framework are more effective than those without the alignment of a theoretical model, and some experts have combined multiple theories to realize significant change effects (Lin & Lin, 2014). A conceptual framework that addresses the increased STDs among young adults in Nigeria should adopt a theory that considers community and cultural factors known to effect the transmission of STDs. Bartholomew, Parcel, Kok, and Gottlieb (2011) stated that most health-promotion theories address the eight components of individual behavioral change:

- a strong positive intention to perform the behavior;
- no social or environmental constraints militating against the behavior;
- when the individual has the skill needed to carry out the intended behavior;
- a positive attitude toward the behavior, as the advantages of such behavior outweigh the disadvantages;
- when the individual is socially pressured to behave certain ways;
- when such behavior is inconsistent with the individual's self-image;
- when the individual's emotional reaction toward the behavior is more positive than negative; and
- when the individual has the self-efficacy or the capacity to perform intended or unintended behaviors.

These identified elements influence an individual's daily life choices, for example, a decision to engage in unprotected sexual activities. Bartholomew et al. (2011)

also stated that many of these theories contain the same basic behavioral message, albeit structured in different ways to fit the purpose of each theory and the targeted behavior.

No theory is better than any other is; rather, each theory best serves the targeted population when it complements behavioral change or plays an explanatory role (Lin & Lin, 2014). I investigated the social ecological model (SEM) and other health promotion models for alignment with the purpose of this review. For example, the HBM involves the exploration of individual perception and actions; however, the larger community and societal values influence such perceptions and actions.

Thus, I needed a theory that examines community factors to complement an individual-based theory, such as the HBM, to serve the targeted population better in Nigeria. Recent studies have shown the complexity and the interrelated nature of phenomenological design in disease transmission, such as STDs (Schwartz et al., 2011). Although no health behavior model can stand on its own, many researchers from various disciplines still tend to favor the use of multilevel approaches to community health issues that integrate personal-, environmental-, and organizational-level factors to influence health behaviors, such as unprotected sexual activities (Schwartz et al., 2011).

Many theories and models serve different purposes. For example, the HBM explains behaviors, whereas the trans-theoretical model (TTM) guides planned change efforts from one stage to another (Lin & Lin, 2014; Traube, Holloway, & Smith, 2011). Many experts have used these theories in a complementary way, despite their different emphases (Lin & Lin, 2014). Both HBM and TTM seek to understand why an individual may be one step closer to achieving a successful change and still need guided in order to

make the requisite decisions that result in improved health (Lin & Lin, 2014). Nevertheless, public health theories aim at health promotions rooted in the social determinant of health and positive life choices, which the HBM and TTM combined model does not emphasize (Brown, Lubman, & Paxton, 2011; Lin & Lin, 2014).

Several authors have suggested theories to assess the beliefs and decision-making processes responsible for the unsafe sexual activities resulting in the high rate of STDs, such as the theory of planned behavior, social learning or cognitive theory, health belief model, and theory of reasoned action and stages of change (Aalsma et al., 2010). The application of these theories has demonstrated significant outcomes, and each of these theories attempts to explain behavior and action from the individual's perspective (Aalsma et al., 2010). The characteristics these theories share is a presumption that the individual has control of the environment, his or her social surroundings, and those responsible for intended behavioral actions, such as unprotected sexual activities.

The SEM, chosen for the study's framework, intertwines individual, socioeconomic factors, the culture, and the environment to nurture positive behavior (Schwartz et al., 2011; Ungar et al., 2013). Thus, interventions designed to reduce disease transmission, such as STDs and HIV among young adults in Nigeria, would be maximally efficacious with the inclusion of the SEM approach. In order to achieve improved outcomes, sustainable intervention should not only target individual-levels, but should reflect the whole socioeconomic and community factors influencing the targeted behavior (Cardoza, Documét, Fryer, Gold, & Butler, 2012; Ungar et al., 2013).

The SEM served as a valuable tool for understanding and promoting awareness of STDs and health risks from a community perspective in Nigeria among young adult specifically in Akwa Ibom state (i.e., individual and interpersonal). Critics of this model have argued that the adoption of SEM tends to distance researchers from the personal knowledge of the targeted population (Ungar et al., 2013). The planning and implementation of programs may require complementary examination of the culture of the targeted young adults' population.

Thus, the SEM provided a conceptual framework that aligned the individuals' activities with the social environment (Cardoza et al., 2012; Schwartz et al., 2011; Ungar et al., 2013). For example, from a SEM perspective, the social environment affects a young adult's attitude towards condom use (Cardoza et al., 2012). Hence, the SEM approaches unsafe sexual activity through the reflection of all social environment factors, such as intrapersonal and organizational perspective (Cardoza et al., 2012). The intrapersonal factors may include beliefs, demographics behavior, and biology. Social environmental factors include government policies, social support, and community support for safer sexual activities, such as abstinence and policies as well as resources put in place to promote healthy sexual activities and reproductive health among young adults (Cardoza et al., 2012; Schwartz et al., 2011; Ungar et al., 2013).

Because of the plethora of influencing factors, I chose the SEM for this research to assist in facilitating and organizing information about young adults and their social environment's interconnectedness (Schwartz et al., 2011; Ungar et al., 2013). Bronfenbrenner (1979) conceptualized a given behavior as being the result of multiple

levels of influence. Each level of influence, when taken together, represents the total social environment (Ungar et al., 2013).

In a discussion of the social environment as the fundamental cause of disease transmission, Bronfenbrenner (1979) acknowledged the inalienable relationship between individuals and the social environment. Research studies involving SEM have shown success in creating community awareness of disease transmission and risk factors (Schwartz et al., 2011; Ungar et al., 2013). However, Olugbenga-Bello et al. (2010) assessed community factors influencing the transmission of STDs in Nigeria and failed to point out the importance of SEM and the reduction of STDs among young adult Nigerians. Research findings and intervention outcomes are regularly and appropriately publicized in most of the peer-reviewed journals and rapidly proliferating university-based health bulletins. Moreover, extant evidence suggests that organizations integrating the SEM into various intervention programs demonstrated improved healthy behavior, at both the community and individual level (Cardoza et al., 2012; Olugbenga-Bello et al., 2010; Schwartz et al., 2011).

To gain a better understanding of the young adults' common or shared experiences regarding STDs, it was necessary to apply an established framework that harnessed their experiences within the context of their environment. Theorists of SEM recognized the interconnected relationship that exists between individuals and their social environment that in turn influence behavior choices (Schwartz et al., 2011; Ungar et al., 2013). Unlike other health models that explicitly explore the attitudes of individuals considered responsible for unhealthy lifestyles, such as engaging in unprotected sex,

SEM takes into consideration the total environment as well as individual activities (Schwartz et al., 2011; Ungar et al., 2013). While individuals are responsible for unhealthy lifestyles, behaviors leading to such decisions and outcomes are determined by the total environmental factors (Ungar et al., 2013).

Consequently, the community shares the barriers to a healthy life, such as the effect of STDs (Caico, 2014). Reduction of these barriers from the SEM perspective has the potential to rebuild the community's capacity to reduce the occurrence of increasing STDs among young adults in Akwa Ibom State. Thus, the most effective approach to developing appropriate STD interventions for young adults should adopt the holistic approach based on the SEM, thus incorporating the influences of individual, community, and government policies.

Other researchers have also focused on the environmentally influenced behaviors that promote STD transmission (Caico, 2014; Khan et al., 2012). For example, the SEM maintains that multiple levels of myriad environmental factors associated with young adult influence human behaviors (Schwartz et al., 2011; Ungar et al., 2013). Environmental factors include family or peer influence, community, culture, and policy (Newman & Berman, 2008; Ungar et al., 2013). The culture and the immediate community equally influence the transmission of STDs among young adults (Olugbenga-Bello et al., 2010; Onokerhoraye & Maticka-Tyndale, 2012). Other factors include beliefs and traditions, economic resources, and social and physical environments (Ungar et al., 2013). When taken together, all these factors influence young adults' perceptions of and

engagements in unsafe sexual activities, leading to increased STD transmission in Nigeria.

Individual-Level Approach

Most research conducted on STDs has centered on individual behavior rather than on the alignment of the individual behavior with the environment (Farley, 2006). Researchers have examined the health risks of STDs, with ample authors associating individual-level risk factors with the increasing incidence of STDs among young adults (Caico, 2014; Khan et al., 2012). Social networks, such as family members and peers, also influence individuals' behaviors (Farley, 2006).

Psychosocial disorders, such as depression, contribute to increased rates of STDs among young adults (Khan et al., 2012). Researches have also established certain sexual behaviors, such as unprotected sexual activities including multiple partners, to contribute to increasing rates of STDs (Anorlu et al., 2005; CDC, 2006; Udofia et al., 2012). Ample evidence supports such ecological social factors as household income, level of education, self-awareness, and the influence of cultural values as underlying environmental factors associated with increased rates of STDs among young adults (Olugbenga-Bello et al., 2010).

Researchers of longitudinal studies have examined the correlation between the social ecological theory and the interconnectedness of the individual-level and the environment (Udofia et al., 2012). Some researchers have also assessed STD risk factors using other theoretical models, including health models (Udofia et al., 2012). Only a few studies have demonstrated compelling evidence through cross-sectional qualitative

research regarding young adults' reproductive health outcomes in Africa, specifically in Nigeria (Mwambete & Mtaturu, 2006).

What studies did exist primarily included individual-level STD education and intervention in Nigeria (Anorlu et al., 2005; Olugbenga-Bello et al., 2010; Udofia et al., 2012). A gap in the existing literature includes the intentional identification of individual-level and environmental factors affecting the transmission of STDs among young adults. Individual-level factors account for high rates of STDs among young adults in Nigeria (Udofia et al., 2012).

However, increasing evidence demonstrates that STD rates of transmission and risks are explained by a series of environmental factors, including the role of culture, religion, and the larger community (Khan et al., 2012; Olugbenga-Bello et al., 2010; Oyelese et al., 2005). Future research and practice should prioritize early social support around individual-level as well as environmental contributions, including an intervention strategy to reducing the rate of STDs among young adults in Nigeria (Khan et al., 2012; Olugbenga-Bello et al., 2010; Oyelese et al., 2005). Studies identified Nigerian traditional institutions' belief that sexuality is an individual and voluntary engagement of self-satisfaction (Ejike, 2011; Olugbenga-Bello et al., 2010; Oyelese et al., 2005). This belief may influence the likelihood that a Nigerian youth will discuss sexual behavior and STD contraction in particularly.

As reproductive health risks affecting young adults in Nigeria become a focus of research, advocacy, and policy, the problems associated with young adult sexuality continue to be a public health challenge. Such risks include unprotected sexual activities

(Udofia et al., 2012), low contraceptive use (Bryan, Rocheleau, & Robbins, 2005; Olugbenga-Bello et al., 2010), and inability to negotiate safe sex (Udofia et al., 2012), as well as the influence of the culture, such as religious beliefs (Mwambete & Mtaturu, 2006).

Reducing STDs among young adults in Nigeria could include the integration of environmental factors (Da Ros & Schmitt, 2008; Schwartz et al., 2011; Ungar et al., 2013). Therefore, an intervention was needed that focuses on the interconnectedness of individual behaviors and interpersonal, intrapersonal, and political factors that may be potentially responsible for the recent STD increase in the Akwa Ibom State of Nigeria. Such a study could result in Nigerian young adults engaging in safer sex practices as well as the development of community-sensitive STD educational materials.

Intervention efforts targeted individual-level factors as a means of achieving significant behavioral change, which tends to diminish over time (Khan et al., 2012). For example, the intervention of STDs in Nigeria based on individual-level showed improved outcome awareness of 35% between 1994 and 1997 (Breger et al., 2001). In a Technical Report of a survey conducted in 2000, STDs among young adults (15-24) had increased at a rate of 11.5% over the past ten years. Thus, additional interventions from an alternative approach seemed to be necessary.

The integration of the SEM to young adult sexual risk behavior entailed examining first their behavior within the context of a social and physical environment (Ungar et al., 2013). The second step should be to design concurrent interventions aimed at relevant multiple levels. Ungar et al. (2013) suggested that the use of the social

ecological model could provide a more effective strategy to influence long-term behavior change. The SEM could also address the issue of diminished sustainability of intervention effects observed with individual-level STD prevention (Ungar et al., 2013).

A comprehensive study in Akwa Ibom State was needed to demonstrate the effect of the interconnectedness of the individual-level and the social environment as responsible for the increased rates of STDs amongst young adults in the state. Further, an even larger need existed to shift the current paradigm regarding the approach to the education of young adults about STDs, away from the predominantly individual perspective to one that integrates the role of the social ecological perspective.

Reproductive Health Education Programs Introduced in Nigeria

Studies have demonstrated that STD interventions in geographically defined communities potentially affect reproductive health outcomes among young adults in Nigeria (Onokerhoraye & Maticka-Tyndale, 2012). Although various interventions have been designed, including sex education curriculum in postsecondary schools, researchers have not appropriately addressed the sexuality of the most vulnerable young adults who are not in school in Nigeria (Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012). Likewise, many researchers have associated sexual and reproductive health issues among young adults globally with mortality rate (WHO, 2012); however, no researchers have investigated the increasing rates of STDs against the background of young adults' perceptions and knowledge of STDs from the social environment perspective in Nigeria.

For instance, disease transmission is often ascribed to individual behavior and lifestyle in Nigeria (Onokerhoraye & Maticka-Tyndale, 2012). Udofia et al. (2012)

pointed out that young adult females in Akwa Ibom State engage in unsafe sexual activities to satisfy elements of their social environment, specifically peer influence. Hence, many sexual and reproductive health programs existed to curtail the increase in STDs in Nigeria, but interventionists have not fully designed or implemented the solutions from the SEM perspective to address the rates of STD transmission in Akwa Ibom State specifically.

Researchers from the Association for Reproductive and Family Health in Nigeria in collaboration with Advocates for Youth (2008) collected data and created the West African Youth Initiative between 1994 and 1997. The resulting report provided reproductive health education programs in Ghana and Nigeria (Brieger, Delano, Lane, Oladepo, & Oyediran, 2001). The African Regional Health Education Center located in Nigeria provided technical assistance that included program evaluation as well as outcome predictions (Brieger et al., 2001). According to the evaluation, more youths acknowledged increased awareness of reproduction health, including the use of contraceptive that increased within 1994 and 1997 by 35% (Brieger et al., 2001). The evaluation findings suggested a strong link between peers and education in the improved outcomes of the intervention (Brieger et al., 2001). Despite the significant success of the program overall, Brieger et al. (2001) failed to identify the environment as a vital factor in disease transmission.

Similarly, the Nigerian Federal Ministry of Health in in 1995 initiated the first National Adolescent Health Policy (NAHP) to formulate health policies aimed at promoting and supporting the dissemination of STD knowledge among Nigerian young

adults (Federal Ministry of Health, 2008). However, there has been no coordination in the allocation of funds and resources to combat the increase of STDs and HIV among youths (Sedge et al., 2009). Despite the revision of NAHP policies to introduce partnerships with other government agencies and non-governmental organizations (NGOs) and to provide a broader strategic framework (Sedge et al., 2009), the NAHP has still not been transformed into an actionable plan (Sedge et al., 2009). Thus, these programs are difficult to measure, as no mechanism is in place to implement them.

In 2002, the Nigerian federal government initiated the Family Life and HIV/AIDS Education curriculum and program charged with developing sexual and reproductive information for the youth. The federal government charged each state ministry of education with the task of implementing the initiative, focusing on secondary school students across the country, with the support of NGOs and international partners (Sedge et al., 2009). To support the program's accessibility to youth, the researchers added a pilot initiative called My Question to the Family Life and HIV/AIDS Education. This service allows youth to use social media, including phone, emails, and texts, to communicate their issues of sexual and reproductive health with designated experts (Sedge et al., 2009). However, the lack of political will and resources hindered the implementation as 10 out of 36 states fully embraced this initiative (Sedge et al., 2009).

Sedge et al. (2009) suggested that this slow implementation is because of states not prioritizing the initiative, a poor economy, and cultural and religious values, such as a belief in complete abstinence. Other reasons include the assumption that sexuality is an individual-level issue that the individual should handle (Sedge et al., 2009). The My

Question initiative is not accessible to youth with limited social media access and usage because of limited phone lines and Internet connections (Sedge et al., 2009).

The International Center for Reproductive Health and Sexual Rights (INCRESE) intended to promote personal accountability and resources for marginalized youth to receive sexual health services. These choices included gay, transgender, bisexual, lesbian, sex workers, and individuals with disabilities (Federal Ministry of Health, 2013). Education as a Vaccine against AIDS (EVA) helped create awareness of STDs, HIV/AIDS, and reproductive health specifically focusing on young people's abstinence (Federal Ministry of Health, 2006). The EVA also created a youth leadership component to advocate for government roles, such as providing free contraceptives and education for the youths to reduce STDs, including HIV transmission, in Nigeria (Federal Ministry of Health, 2006). Despite all these programs, a significant reduction in STD transmission among young adults has not occurred in Nigeria, specifically in Akwa Ibom State. The real solution needs to harness the perceived voices of the young adult affected to structure sustainable strategies toward reversing the increasing STD transmission in the state and the country at large.

The Federal Republic of Nigeria (2008) is a constitutional republic comprised of 36 states with Abuja as the capital. Nigeria is one of the West African countries with a shared boarder with Chad and Cameroon in the east, Niger Republic in the North, the Benin Republic in the west, and the southern coast on the Gulf of Guinea (Federal Research Division, 2008). Nigeria is the most populous country in Africa with a population of 174 million people (National Population Census, 2006). According to the

National Population Commission (2009), Nigeria is the seventh most populous country in the world. Nigeria has 500 ethnic tribes and is equally divided between the Muslims in the North and the Christians in the south. The three largest tribes in Nigeria include the Igbo, Housa, and the Yoruba (Federal Research Division, 2008). Despite the abundance of oil resources, the health and standard of living of the average Nigerian is poor, with a life expectancy of 52.62 years on average (Federal Research Division, 2008), highlighting a poor healthcare system. According to the Federal Research Division (2008), the infant mortality rate between 1990 and 2003 was 97.1 deaths per 1,000 live births.

Nevertheless, the STD and HIV rates in Nigeria are lower than in countries with double-digit percentage rates, such as Kenya or South Africa. The National Agency for the Control of AIDs (2012) estimated STDs, including HIV, to affect 3.6% young adults into the adulthood in Nigeria. Each of the 36 states in Nigeria also share the burden of the increasing rates of STDs. For example, Akwa Ibom State has the second-highest prevalence of STDs, mostly among young adults (Udofia et al., 2012).

Akwa Ibom State is located in southeastern Nigeria by Rivers State, with Abia State to the north, the Gulf of Guinea to the south, and the Cross River State to the east (Udofia et al., 2012). Akwa Ibom State has a population of about 3,902,051 people, of whom 70% reside in the rural farmland communities and is the 10th largest state in Nigeria (National Population Census, 2006). However, more than 75% of the population live in poor living and health conditions (Udofia, Akwaowo & Ekanem, 2012).

Summary

The ongoing search for solutions to reduce STD transmission among young adults globally continues to receive public health attention (WHO, 2012). STD transmission among young adults in Akwa Ibom State has become a public health concern (Udofia et al., 2012). A sustainable solution developed from the young adults' perspectives was needed to address the health risks associated with STD transmission. In this study, I followed a qualitative approach, a phenomenological design, and the SEM perspective to investigate the factors potentially responsible for the recent increase in STDs among Nigerian young adults.

Chapter 2 included the literature search strategy, the main themes, the theoretical framework, and a review of STD programs in Nigeria. Each section of this chapter offered specific intervention strategies as well as insights regarding the health effect of the young adults, covering both individual- and community-level approaches. STDs affect young adults worldwide; thus, STD transmission is a global public health problem. However, STD transmission is more endemic in developing countries than in developed countries, including in developing countries in sub-Saharan Africa, such as Nigeria. This chapter also provided an extended review of the analyses and designs used by other researchers about STD transmission, perception, and intervention that assisted in selecting the appropriate methodology for this study.

Although most literature reviews on public health theories focus on individual approaches and interventions to change behaviors, continued evidence demonstrates the interconnectedness of the individual and the social environment (Lin & Lin, 2014;

Olugbenga-Bello et al., 2010; Schwartz et al., 2011; Traube et al., 2011; Ungar et al., 2013). A need existed to shift from the individual-level approach to an expanded social-ecological framework that may provide a holistic strategy solution to the reduction of STDs among young adults (Lin & Lin, 2014; Schwartz et al., 2011). The utilization of an expanded social ecological framework not only facilitated the identification of determinants of young adults' sexual risk and protective behaviors, but also offered an explanation for STD acquisition (Traube et al., 2011).

I proposed a strategy based on an ecological model also known for a holistic approach for integrating research and designing an intervention to address STD transmission among young adults in Nigeria. Bronfenbrenner (1979) observed the inalienable relationship between individuals and the social environment. The SEM has been successful in creating community awareness of disease transmission and risk factors (Olugbenga-Bello et al., 2010; Schwartz et al., 2011; Ungar et al., 2013). Approaches based on SEM involved the intrapersonal and social environmental factors potentially responsible for the increasing rate of STDs (Cardoza et al., 2012). The strategy allowed me to take into consideration community-level interventions, such as culturally appropriate sexual health information and services, as well as policy initiatives and institutionally based programs to create social change.

Creating sustainable STD intervention strategy solutions from a young adult-centered perspective could further lower the increasing rate of STD transmission rates in Akwa Ibom State. Although both the Nigerian government and NGOs have attempted to address the increasing rate of STD transmission, a successful outcome is still developing

at a slow pace. Strategic measures and systematic execution of intervention programs are needed, including leadership and resources to address the rates of STDs among young adults.

Many intervention strategies emphasize an individual-level health behavior approach and its critical role in understanding how to improve human health, but the evidence shows that individual-level approaches are not the answer to all health problems, including STD transmission (Ungar et al., 2013). Thus, I considered the social and community context, as facilitated by the SEM, to assess perceptions, beliefs, and external constraints influencing the transmission of STDs among young adults in Nigeria. Chapter 3 presents the research methodology and design of this study. Chapter 4 outlines a discussion of the results and findings. Chapter 5 provides recommendations for future research and implications for social change.

Chapter 3: Research Method

Introduction

The purpose of this study was to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among young adults in Akwa Ibom State of Nigeria, using the SEM. This chapter documents the qualitative approach and phenomenological design used to explore the social environmental factors responsible for the recent increase in STD transmission in Akwa Ibom State (Olugbenga-Bello et al., 2010). Included in this chapter are the research design, the rationale for choosing a phenomenological design, and the role of the researcher in this study. Moreover, the chapter presents a discussion of the study sample and the criteria for selecting participants to represent the study population. Finally, this section outlines the method and instrument for data collection and data analysis as well as ethical considerations.

Research Design and Rationale

I used a qualitative, phenomenological research approach for this study to comprehend lived experiences of the participants. The participants responded to the following research questions:

RQ1: What beliefs do Nigerian young adults (aged 18 to 24) have regarding STDs?

RQ2: What role does the cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State?

RQ3: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State?

RQ4: How do males and females differ in their perception of STD transmission?

RSQ1: How can your experience help prevent STD among young adults in Akwa Ibom State?

Phenomenology supports efforts in gathering rich data as told by real people through their lived experience of an event. In this study, I utilized a phenomenological design to explore participants' behavior, STD transmission, and the interplay of sociodemographic environment as contributing factors responsible for the increasing rate of STDs among young adults in Akwa Ibom State.

Kemparaj and Chavan (2013) defined qualitative research as a range of methodological strategies that focus on gaining an understanding of people's sociocultural contexts and their interpretations of their lived experience. Such an approach encouraged the flexibility needed to better gain meaning from participants' lived experiences regarding STDs and the interplay of the physical environment in the transmission of STDs, as well as how the environment supports the transmission of STDs (Kemparaj & Chavan, 2013). With a qualitative method, the researcher observes and interviews participants to analyze themes, characteristics, attributes, and patterns of meaning of a particular phenomenon (Tracy, 2010).

Therefore, in choosing a qualitative method for this study, I documented key information regarding how the community and youth feel about or perceive STDs at the community level and their attitude toward preventive measures such as condom use and

assertive skills in condom negotiations with partners. A key strength of the qualitative design was the authentic data from a natural setting found in the rich description of events and meanings pertaining to the increasing rates of STDs among the young adults in Akwa Ibom State.

Previous researchers determined some potential themes and findings, which guided the methodology. Oyediran et al. (2011) conducted a study in Lagos, Nigeria, and concluded that Nigerian young adult males and females perceive STDs differently. Also perceived differently was the use of contraception among male and female young adults. The relative importance of these two themes to the research questions of this study was clarified through a qualitative research approach and the phenomenology design (Onokerhoraye & Maticka-Tyndale, 2012). Thus, previous researchers established a difference in risk perception of STDs between female and male adolescents in Akwa Ibom State. Gathering this rich data, as told by real people through their lived experiences, provided information that may lead to STD reduction in Akwa Ibom State among young adults.

These factors are critically important with respect to events that precipitated an increasing rate of STD transmission among young adults. Research studies indicated that young adult females are more aware of STDs and health risks than young males, which raises questions as to what might lead to such a perception (Oyediran et al., 2011). Thus, the common theme in the research that males and females perceive STDs differently raised an issue of concern that required further exploration to assess the high STD prevalence among young adults in Nigeria. The findings from the qualitative perspective

helped to further enrich the literature on STD transmission that could potentially assist in the development of appropriate and culturally relevant STD interventions with young adults.

The Phenomenological Design and Background

In the context of searching for social knowledge and understanding of human behavior, researchers have applied various research methods to facilitate detailed and in-depth analysis of experiences and meanings (Bogdan & Biklen, 2003; Thomas, 2011). The phenomenological design enables participants to ascribe unique meaning to their surroundings (Sadala & Adorno, 2001; Thomas, 2011). Sadala and Adorno (2001) suggested that phenomenological researchers focus on exploring the experiences and provide an in-depth examination of what, why, and how events happened in an attempt to gain explicit knowledge regarding how each component contributes to the lived experience of an individual or a group.

In this study, I was concerned with the identification of the common or shared experience of STDs and associated health risks. Thus, gaining background information from those affected to understand the event was imperative in developing an in-depth understanding. Furthermore, since prior researchers have identified STD transmission as a community health problem (Khan et al., 2012; Voisin & Bird, 2009), I assessed the phenomenon from the perspective of a group of young adults rather than from a narrative account of one individual's experience.

The phenomenological design provides authentic information gathered by direct communication with a young adult population affected by STDs. This direct contact

allowed me to see the behavior within the context of a natural setting. While a narrative study tends to focus on a single individual's surroundings, a phenomenological design describes the meaning of individuals' lived experiences (Sadala & Adorno, 2001). For example, the phenomenological design facilitated the account of young adults experiencing increasing STD transmission from their perspective. The authenticity of lived experiences and the sensitivity from the intimate setting had the potential to provide information that was critical and could help with the development of sustainable STDs intervention strategies. Thus, the phenomenological design allowed me to explore more than one individual's experience, as well as understand the context of the social environment (Sadala & Adorno, 2001).

Critics of phenomenological design argue that because of the small sample size, generalized data cannot be ascertained (Sadala & Adorno, 2001). Other critics of the design believe that participants' communication skills, including the expression of their shared experience in a local language other than the researcher's language, could result in unreliable information that may subsequently lead to data inaccuracies (Sadala & Adorno, 2001; Thomas et al., 2011). Moreover, the age of the participants, as well as their ability to recall an event in a consistent way, might compromise their descriptions of their unique lived experience regarding the phenomenon (Thomas, 2011).

Despite these limitations, the phenomenological design allows a researcher to gain an understanding of the values, beliefs, and social environments of the participants from an individual-centered and holistic perspective (Thomas, 2011). Phenomenologists report information as collected rather than as data from the people experiencing the

phenomenon (Sadala & Adorno, 2001). As such, young adults' lived experiences regarding STD transmission are best understood from a young adult-centered perspective.

Edmund H. Husserl, a German philosopher, first conceptualized the phenomenological design to learn about lived experiences from a natural setting (De Castro, 2003). Merleau-Ponty, Schulz, and Heidegger further expanded the concept to describe better the meaning of a phenomenon (De Castro, 2003). The general goal of phenomenology is to capture and understand a person or group of people's lived experiences regarding a particular situation through interviews and to describe such shared experiences consistently (De Castro, 2003).

The above general background supported the choice of the phenomenological approach to this study. Understanding young adults' lived experiences regarding STDs served to gather the authentic information that may lead to the development of appropriate interventions. By choosing a phenomenological design, I made a conscious attempt to identify and understand shared experiences pertaining to STDs and how STD transmission occurs among young adults. Thus, I was concerned with understanding the increased rate of STD transmission and health risks associated with STDs from young adults' points of view.

Data Collection Procedures

Three data collection sequences occurred in this study: collection, coding, and analysis of data. Given the data collection sequences, the interviewer, an observer-participant, participated in the in-person interview approach. Unlike with mail surveys, the researcher had the chance to ask further questions to learn more about the

participants, the environment, and STD transmission. The interview approach chosen for this study allowed the researcher to interface with the participants to learn how they describe their STD lived experiences and the environment that encourages this transmission (Beale, Cole, Hillege, McMaster & Nagy, 2004). This approach also allowed not only verbal but also nonverbal communication aimed at gathering in-depth and free meaning of the participants' lived experience of the phenomenon (Hiller & DiLuzio, 2004).

Furthermore, sharing the same space enhanced good rapport between the participant and the interviewer, which ultimately promoted the free expression of the experiences of the phenomenon (Hill et al., 2005; Shuy, 2003). For example, study participants' facial expressions and other nonverbal communication authenticated the meaning of the conversation (Carr & Worth, 2001). In addition, in following the design of this study, I asked participants the same questions with a follow-up, in-depth question to further ascertain the knowledge of the participants regarding their interaction with emerging STD transmission (Carr & Worth, 2001). Hill et al. (2005) stated that semistructured interviews can serve as a guide to in-depth conversation and shared meaning of the phenomenon in a creative and flexible way, while maintaining the rich meaning of the participants (Hill et al., 2005).

The in-person interviewing data collection process for this study also enhanced the researcher-participant rapport and encouraged full immersion in the data-gathering process. Immersion, according to Smith et al. (2012), is a qualitative technique where the researcher integrates into the system in order to observe, question, listen, and develop

healthy rapport with the people, places, and things around that environment. These strategies enable the collection of in-depth data, which, in turn, yields a thick, rich description of the big picture (Smith et al., 2012). In this study, I used the immersion technique to gain information from the study participants about their experience regarding increasing STDs and transmission. The immersion techniques encouraged the participants to express freely the meaning of their lived experience about an event, resulting in rich, authentic data regarding participants and their STD experiences (Carr & Worth, 2001).

The Role and Background of the Researcher

While organizing this dissertation topic from a personal, professional, and community perspective, I pondered my role as a medical outreach coordinator to the Akwa Ibom State communities for more than eight years. Then, I recognized the significance of conducting research on a sensitive topic, such as STDs, from a community perspective rather than from an individual perspective. As a medical outreach coordinator to these communities, my valuable personal experiences working with young adults could facilitate appropriate and culturally sensitive communication regarding STDs among the young adults in this setting.

Thus, my shared culture and geography with the participants demonstrated a personal connection to the young adults' lived experience of STDs without introducing bias. Rather, the sensitive nature of the research topic heightened the important role the researcher intended to play in the data collection of this study. Such a role included mutually and respectfully encouraging participants to share their lived experiences. My

prior knowledge of STD transmission among the young adult population underscored the lived experience of the participants. For example, for the participants, both sexuality and STDs are private, stressful, and sacred, and disclosure regarding either may result in actual or perceived stigmatization (Olaseha et al., 2004). Hence, I followed Walden's ethical guidelines to ensure the minimization of biases in this study.

For several reasons, young adults infected with STDs often desire some confidentiality in their discussion of this phenomenon (Olaseha et al., 2004). Therefore, my role as observer-participant in this study served to increase an understanding of the meaning and effect of STDs on young adults' sexual and reproductive health without exposing them to moral risks, such as shame or stigmatization. My values and beliefs reflected not only in the choice of the interview process, but also in the selection of the research topic. Such personal connection guides the safety needs of all participants from the perspective of a mutual relationship. In addition, my position as an observer-participant and interviewer was that of a facilitator. I guided the interview process to elicit the unique meaning of the participants' lived experiences. Besides, the mutual process clarified the interviewer's role (Carr & Worth, 2001) and further enhanced the trustworthiness, transparency, and accountability in this study.

Study Population and Setting

The Akwa Ibom State Polytechnic traditionally serves 18-24 year old full-time and part-time students. Various college studies in Nigeria have cited young adult students as the most vulnerable population to STDs (Oyediran et al., 2011). Young adults aged 18–24, typically college students, are the most vulnerable population in Nigeria because

of their early engagement in unsafe sexual activities (Nnoruka & Ezooke, 2005; Olaseha et al., 2004; Oluwole, Abudu, & Adebajo, 2005; Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012). Likewise, Ijadunola et al. (2007) reported a high prevalence of STDs among college students aged 18 through 24 (Caico, 2014).

In this study, I utilized the convenience sampling method to meet young adults' needs, such as their availability and easy access. This method of sampling allowed young adults to participate voluntarily in the study, as it would have been virtually impossible to interview the entire student population. Interviews involved a co-ed sample of college students who may have experienced STDs while in college and were willing to discuss these experiences. Although many researchers question the use of convenience sampling because of unclear generalization, convenience sampling aligns with the qualitative research method and phenomenological design. Moreover, it was convenient for the study population because of students' flexible classes on campus. Therefore, using convenience sampling aligned with the college schedule and participants' ease of access.

Selection Criteria for Participants

Eligibility for participation included young adults aged 18 through 24 with shared common experiences about STDs. All participants were recruited from Akwa Ibom State Polytechnic, as well as from the same race, ethnic or cultural background, and geography. Akwa Ibom State Polytechnic served as the primary recruitment campus for this study. The college is located in the center of the state, and its students come from the 31 local government areas in the state. Potential participants voluntarily contacted the researcher by calling the phone number provided on the posted campus flyers and engaged in a short

phone interview to determine eligibility for participation in the research project (see Appendix A).

I then selected 20 participants meeting the study requirement for a one-on-one interview at a mutual and safe location. Participants signed an informed consent form as a requirement to participate in this study. I interviewed an equal number of females and males respectively, without regard to social status, to learn about the differences and commonalities in young Nigerian individuals' distinct experiences concerning the increase in STD incidence.

Saturation was achieved when enough responses described the meaning of the phenomenon gathered out of a sample size of 20 participants. The phenomenological researcher is concerned with exploring the meaning and not making a generalized statement (Crouch & McKenzie, 2006; Guest, Arwen, & Johnson, 2006). Similarly, in a study of saturation, Jette, Glover, and Keck (2003) suggested researchers can limit the number of participants needed to the number that can support the quality of the data being explored (Guest et al., 2006). In addition, a phenomenological study is labor intensive, including time and energy (Guest et al., 2006). The sensitivity of this research study topic constrained the availability of participants. Therefore, I chose 20 participants for this study.

The goal of the research was to understand STD transmission among young adults aged 18-24 enrolled in a college setting. Although incentives often achieve health-change behavior, I did not intend the use of incentives to coerce participants into taking part in the study; rather, it was an inducement to assist participants with transportation to the

location of the interview. Means of transportation is a serious problem in the state and specifically around the college campus.

An inducement of $20 provided compensation for transportation fare. Such compensation appropriately demonstrated appreciation for sharing one's time and for the courage to engage in a sensitive health topic, STD transmission. A discussion of incentives and intentions was included in the informed consent form and shared with study participants before the study commenced. The form detailed participants' rights during the entire study process, including the right to opt out or not to answer any interview question considered uncomfortable, or to opt out of the entire interview at any time.

Once establishing that participants met all of the criteria for participation based on the initial confidential phone interview, I arranged an appointment for individual face-to-face interviews with the participants. For convenience and confidentiality, participants had the option to choose the location of the interview or for the researcher to suggest a private place to meet on the college campus that also protected the researcher and participant from unintended harm. Thus, my role as researcher adhered to the general informed consent and ethical consideration guidelines that govern qualitative research. The informed consent form detailed the purpose of the study, the participants' expectations or the social implications of the study, the funding source, as well as how intended data would be utilized (Lewis & Ritchie, 2003).

Pilot Testing

I used a pilot testing design for the interview preparation and implementation (Archibald & Newman, 2015). The purpose was to try out the questions on people who were similar to those who answered the interview questions. The pilot test assisted in determining if flaws, limitations, or other weaknesses existed within the interview design (Barth, Cook, Downs, Switzer, & Fischhoff, 2002). For example, the pilot participants helped the researcher understand areas potential participants understood or did not understand. In this study, I piloted the interview questions among six college students similar to the sample study population. After pilot testing participants with the one-on-one interview, I then asked each participant to comment on any unclear or awkward questions, and revised interview questions accordingly.

I expected that participants read and asked any questions they had before signing the consent form (see Appendix B). The recordings did not include the actual names of participants. Instead, I identified participants via coded combinations of letters and numbers. Interview recordings were only accessible to the interviewer and are safely stored in a coded computer. I kept interview transcripts in a similar manner stored on a coded computer that is only accessible to the researcher. Information that may identify participants in any form was not recorded on the tapes or included in the transcripts. After each interview, I wrote out thoughts regarding the phenomenon based on themes arising from the interview and key points for data analysis.

Interview Protocol

I began by providing the script on the Qualitative Interview Protocol (see Appendix C). At this time, I shared detailed information about the study, including the social implications of the study and the next steps in the research process. I asked the participant about his or her current relationship status and whether he or she was currently seeing a sexual and reproductive health professional for any sexual health risk concerns. I then continued with the semistructured interview questions, allowing the participant to elaborate and to ask follow-up questions as necessary.

I used Walden University approved open-ended interview questions. All participants answered the same questions, and through follow-up questions, I clarified stated points or sought more meanings into a particular theme of the study. This way, I easily analyzed and compared themes from participants' perceptions. The goal of this interview was: (a) to obtain understanding of the increasing rate of STDs among young adults in Akwa Ibom State through detailed examples and rich narratives from the study participants; (b) to understand the events both from the individual and community level, leading to the recent increase in STDs rate among the young adults; (c) to engage young adults with perceived solutions to reducing STD transmission and health risks; and (d) to understand perceived solutions young adults may offer to reduce STD transmission.

The interviews lasted approximately 45-60 minutes. All participants had a 5-10 minutes debriefing session to reflect on the interview process and questions that may not have been covered adequately during the interview. Participants also clarified any doubts about the interview at that point. In the end, a list of resources obtained from the Nigerian

Ministry of Health and other relevant health centers about youth sexual reproduction and transmission of disease as well as health risks was provided to all participants.

Data Collection Method

Data Collection

The data collection process included use of memory, field notes, an audio recorder, and a notebook or laptop computer. An audiotape recorded each session, later transcribed into written form for analysis. The information was coded and segmented to allow for easy analysis of the coded data using the NVivo software program. Though the moderator followed an interview guide for each session, the guide was subject to modification to ensure participants provided essential information regarding each theme. The moderator asked follow-up questions as needed while maintaining focus on the central themes. I coded and analyzed the data collected, and applied specific codes to selected quotations and noted the frequency of the major themes. To achieve a detailed understanding of the issue, I used a systematic analysis using full transcripts and a formalized coding scheme (initial and focused).

Data Analysis Plan

Prior to data analyses, I listed each of the research questions along with various interview questions to show alignment. I intended this data analysis plan to guide the data analysis process aimed at ensuring that interviews aligned with research questions and data presented sequentially. Having received training on qualitative data analysis using NVivo software design, I used the software to group information collected into themes and codes accordingly. In using this tool, I attempted to answer the research questions

identified in Chapter 1 by analyzing interview questions based on themes also identified in Chapter 2.

Threats to Validity

The primary threat to validity in this study was regarding interpretation and analysis of interviews from the participants. I transcribed interview responses verbatim from the participants and did not impose my opinion in any form. In addition to attempting to present participants' responses verbatim, I constantly compared participants' responses to the interview questions. Another strategy I used to check validity was to allow participants to read the data analysis and offer feedback. This way, researcher inconsistencies in interpretation of data were limited, and participants could re-analyze the data to strengthen the validity of the study. Thus, the interpretation and subsequent data analysis reflected the lived experiences of the participants and strengthened the study validity.

The one-on-one interview approach is also prone to recall bias, because the participants answered questions regarding their experience with STDs. The participants provided responses that could be considered socially unacceptable or that may appear as over-reporting when recalling their experiences with STDs and transmission. According to Morema et al. (2014), a self-reporting interview may not be accurate because it may not be authenticated. Validating the self-reporting interview of the vulnerable young adults could have revealed inequities that may be even higher than expected.

I used a pilot testing design to test interview questions, thus minimizing threats to validity in this study. In addition, I discussed issues of bias and subjectivity with young

adult participants to create a trust and open conversation (Mehra, 2001). The awareness of potential bias allowed not only for a well-managed relationship in which the young adults freely shared their lived experiences regarding STDs with the researcher, minimizing the threats to validity in this study.

Ethical Procedures

Human Subjects Protection

This research study involved human participants. I safeguarded and protected all personal or identifying information that may breach confidentiality and anonymity or any conflict of interest by the researcher, per Walden University's human subject protection guidelines. Furthermore, I ensured the protection of the participants from any other information obtained during the interview process. I did not attempt throughout the study to obtain any personal or identifying information. Walden University's Institutional Review Board (IRB) approved this study before data collection occurred (IRB 10-23-15-030880). The data obtained from this study were strictly for the purpose of analysis with the approval of the IRB at Walden University.

I also obtained ethical approval for this study from Walden University's IRB. I elicited further ethical approval from the Nigerian Institutional Review Board and the Akwa Ibom State Ministry for Health. Akwa Ibom State Polytechnic granted permission for the study. The participatory and collaborative nature of the information gathering in this type of qualitative research presented critical ethical issues. In addition, the in-depth and unstructured nature of this qualitative study called for thoughtful, ethical considerations throughout the entire research process (Lewis & Ritchie, 2003).

Participants received the assurance that their personal information remained anonymous, classified, and undisclosed to any unauthorized person from the start of the study process to the final report.

Treatment of Data

The data used were anonymous, and I did not attempt to obtain any identifying information. I strictly and professionally utilized all documents and reports to provide respect for the participants in this study process. I maintained utmost integrity and professionalism throughout the study analysis, and made no attempt to falsify, tamper, modify, or alter any data used in the study. Electronic data are secure in a coded computer, per Walden University data policy. All paper data, such as interview transcripts, will remain safely stored in a secured cabinet for 5-years allowed by Walden University. Only the researcher and the Walden University designated personnel have access to this data. I will destroy the data when the 5 years period has elapsed.

Summary

This chapter focused on the research design of the study along with the rationale, methodology, population, sampling procedures, and procedures used for recruitment. In this chapter, I discussed the study instruments and data analysis plan, threats to validity and reliability, the interview process, and ethical considerations.

The chapter began with an introduction of the qualitative research choice of this study as well as the rationale for choosing a phenomenological design to investigate the young adult experience regarding STDs in the Akwa Ibom State of Nigeria. I addressed my role as the researcher, including biases, and the ethical considerations needed to

conduct the study. In order to understand the participants and the entire environment contributing to the problem, I collected field information from a natural environment where participants experienced problems (Thomas et al., 2011; Tracy, 2010).
The natural setting and the authentic context of the young adults' social environment offered the real meaning of a young adult's experiences with STDs in Akwa Ibom State.

Equipped with its language and methodology, the phenomenological design helped to provide authentic information gathered directly from those affected by STD transmission. While the narrative study tends to focus on a single individual's surroundings, a phenomenological design involves describing the meaning of individuals' lived experiences (Sadala & Adorno, 2001). As a public health professional and a researcher, I am aware of the individual-level notion ascribed to this topic, specifically among the Nigerian communities' researchers. I believe such notion or concerns created around young adults and STD transmission need a well rigorous research from the young adults' perspective on this sensitive research topic in order to develop targeted intervention strategies.

The chapter presented the sampling population strategy and participant selection process including informed consent. The chapter also outlined the data collection process, including the alignment of research questions and semistructured one-on-one interview questions, as well as data analysis procedures. A standardized, open-ended semistructured interview was most appropriate for this study, used throughout the interviewing process. The choice of this data gathering instrument allowed the affected young adults or participants to express their diverse views regarding STDs and the

environment, as well as the events that enable STD transmission. This process underscored the authenticity of participants' lived experiences.

Interview responses obtained from each participant through the open-ended interview design were analyzed to show agreement and the alignment of the identified themes of this study. With semistructured interviews, I was able to not only assess the participants' views, accounts of the event, and beliefs, but also extract narratives of their individual experiences regarding the STD transmission, associated health risks, and perceived solution.

In general, a study of this magnitude served to benefit not only Nigerian young adults but also the entire community by reducing the alarming rate of STD infection among Nigerian young adults. Thus, the findings will help in developing a culturally appropriate intervention for STDs among young adults in Akwa Ibom State. This study demonstrated how listening to the expressed concerns of young adults regarding STDs and offering the real solution from young adults' perspective has the potential to bring about positive social change.

Chapter 4 presents the procedure for the analysis and interpretation of the textual data collected. The analysis of the descriptive accounts revealed seven dominant themes. Prior to introducing the themes, I provide demographic and reflective information about each participant and the interview session. The chapter concludes with the descriptive presentation of the emergent themes, which reflect the perception of the participants regarding the increasing STDs among young adults.

Chapter 4: Results

Introduction

The purpose of this study was to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among young adults in Akwa Ibom State of Nigeria, using the SEM. The participants were students at Akwa Ibom State Polytechnic, which serves 18-24 year-old full-time and part-time students. The primary research questions guiding this study were as follows:

RQ1: What beliefs do Nigerian young adults (ages 18 to 24) have regarding STDs?

RQ2: What role does the cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State?

RQ3: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State?

RQ4: How do males and females differ in their perception of STD transmission?

The additional subquestion was:

RSQ1: How can your experience help prevent STD among young adults in Akwa Ibom State?

This chapter documents the data collection procedures employed in the current study. The themes developed from the data collected in the study are also detailed. The chapter closes with a brief summary reviewing the themes from the analysis.

Data Collection

Before the start of the data collection, I conducted a pilot test with six participants recruited from Akwa Ibom State. The pilot test established the understanding of the interview questions and helped to eliminate flaws as well as other potential limitations. The pilot test indicated that the pilot test participants easily understood the questions and that I did not need to revise the interview protocol.

Study participants were between the age of 18 and 24 and indigenes of Akwa Ibom State, sharing the same race, ethnic or cultural background, and geography. Participants were current students of Akwa Ibom State Polytechnic who were willing to talk about STDs through a face-to-face interview in a safe location in the city. Because the 20 participants were able to speak, understand, and write English fluently, the 45-60 minute interviews occurred in English.

Before the young adults signed the informed consent and participated in interviews, participants read the informed consent and had the chance to ask questions to clarify concerns, including their right to opt out at any time during the interview process. Rather than using the coded numbers and letters earlier envisioned for the data collection and analysis, I assigned a fictitious name to each participant to hide personal identity throughout the interview process and data analysis. Despite the identification of participants' ethnicities, the overreaching homogeneity focused on the STD transmission among the young adults. Table 1 presents the demographic information for the 20 participants.

Table 1

Demographic Information for Study Participants

Name	Age	Gender	Ethnicity	Year in college
Bank	19	Female	Ibibio	2
Beauty	18	Female	Oron	1
Charles	21	Male	Oron	2
David	21	Male	Ibibio	2
Eko	23	Female	Annang	2
Grace	24	Female	Ibibio	1
Happiness	18	Female	Oron	1
Imo	24	Male	Oron	2
John	24	Male	Annang	2
Jos	23	Male	Annang	1
Lisa	19	Female	Oron	2
Mark	18	Male	Ibibio	1
Peter	20	Male	Oron	2
Ramsey	20	Male	Ibibio	1
Rivers	22	Male	Annang	2
Sarah	18	Female	Oron	1
Spring	23	Female	Ibibio	2
Sumer	24	Female	Ibibio	2
Victory	21	Female	Annang	2
Wonders	22	Male	Oron	1

Findings

I imported individual interview transcripts into NVivo for data management during analysis. Once I imported all 20 transcripts into the software, I assigned nodes for data analysis related to the research questions guiding this study. I then read the interview transcripts to gain a familiarity with the contents of the transcripts. I reread the transcripts to pull the information apart into units of meaning, which I assigned into each node. These units of meaning, or codes, were grouped into categories and then themes.

I organized the themes by research questions, as detailed in this chapter. The themes are arranged and presented by the research questions and subquestions to which they relate, with overarching themes presented related to finance and power, and religion. Figure 1 presents the themes related to the research questions from the data analysis.

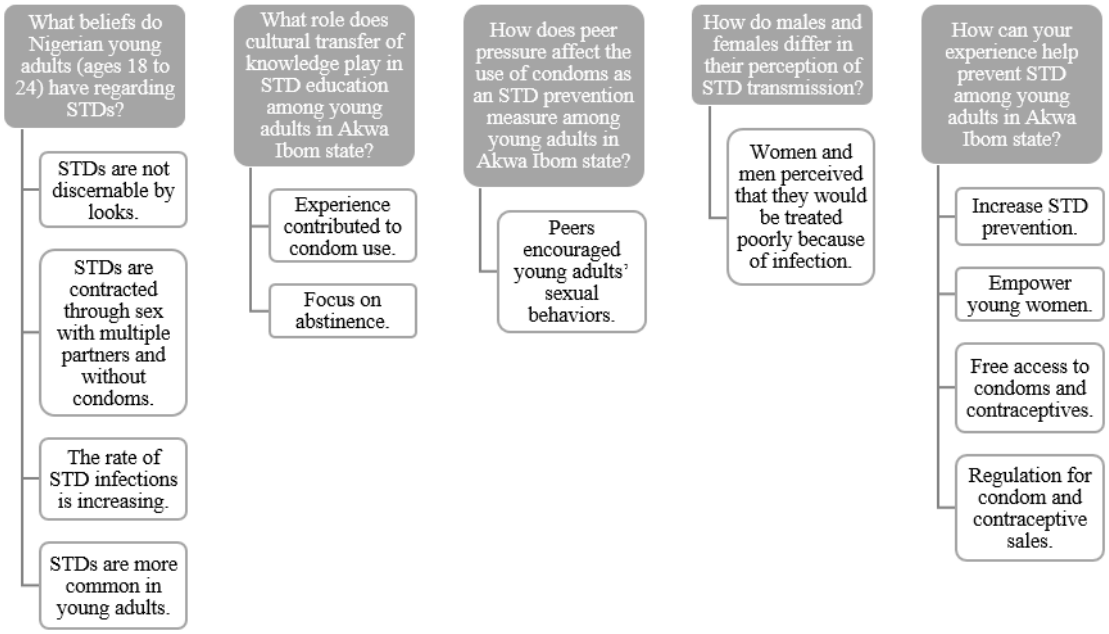

Figure 1. Themes developed from data analysis.

Finance and Power

Participants consistently conflated finance and power when providing responses related to the research questions. This conflation was most common when participants described the dynamics of the sexual relationships between older men and young women. For example, John noted, "You see they control the girls here because of money." Mark was able to illustrate a trend he perceived where young women were willing to risk STD infection in their pursuit of financial gain, stating:

> Just last week another friend who had sex without condom had syphilis from our campus girl who sleeps around with other men and stranger…It's all about material or monetary gain. Females go for things like the latest cell phone some of them have their men friends to furnish rooms for them or buy them car. With all these some girls don't even remember to ask for condom during sex. Some girls like to have a sugar daddy and a boy they will keep aside.

John supplied further insight, explaining the power that these men wield because of the financial support they gave young women:

> Some of the older men in this town focus on young people to satisfy their sexual drive and they bombarded the girls with money whatever they need. With this the girl cannot ever ask them to use protection against STDs. You see they control the girls here because of money. That's why these young girls are most vulnerable to STDs because of money to buy what they want.

John highlighted an environment in which the older men plied girls with money, and this money in turn gave them sexual power over the girls. The men would then exert this power to avoid using condoms during sex. Beauty added:

> Another reason why young girls are more into sex without protection is money or material things as most matured men sleep with the young girls don't like to use condom and because the men give the young girls money they have power over them they decide whether they should use condom or not and the girls may care but because of money they can have sex without condom.

Because young women relied on older men for goods and money, these older men were able to exert their control and insist that they would not use condoms.

This dynamic rendered young women vulnerable to STD infection. Jos said, “I can say female are more vulnerable to contract STDs than males because of their drive to get everything including the latest cell phone.” Because of young women’s dependence on older men for money, older men held a position of power over young women. Older men’s position of power enabled them to control condom use. Victory said, “This is just the case where men control sex because of money and we young girls are at the mercy of them.” Mark reiterated, “In our society male tends to be the dominant in sex and so tend also to be in control on when to use condom.”

At the mercy of their male suitors, young women did not feel empowered to refuse to have sex with men or insist on the use of condoms. Jos stated, “That’s why some of them get STDs because they can’t say no to their men or even able to offer them condom.” The domination of sex by men and subsequent ramifications for young women left them more vulnerable to STD infection. Bank said:

> The problem with we young girls is that once you have an older friend who don’t use condom we trust them so they don’t leave us to another person or so they continue to give us gift like phone or rent a room for some of us.

Along with the inability to demand that their sexual partner used condoms, the men also would not share their STD status with the young women, even if they knew they were infected.

The women's desire to gain financial benefit from involvement with these men outweighed their insistence that the men use protection for fear that the men would find another girl who was willing to have unprotected sex. John agreed with this belief:

> Some may even take it for granted because of money. Some of the older men in this town focus on young people to satisfy their sexual drive and they bombarded the girls with money whatever they need. With this the girl cannot ever ask them to use protection against STDs. You see they control the girls here because of money. That's why these young girls are most vulnerable to STDs because of money to buy what they want.

In this manner, finance and power were intertwined in participants' responses. These two themes frequently undergirded the other themes uncovered in data analysis.

Religion

Religion was another concept participants frequently mentioned while providing responses to the interview questions. Passive mentions to religion and more in-depth discussion related to the role religion played in their sexual practices were common across the interview transcripts. When describing the hurt she felt following a disagreement with a friend, Bank stated, "This was so shameful and I had to leave her to God." Exclamations such as this were common; Happiness stated, "May the good God help us from this evil," when discussing the inability to discern who is infected with an STD. Additional references appeared throughout participants' transcripts, such as Victory's proclamation that she needed to "secure [her] future first God's will get

married and have a great family" or Eko resolving that she had to "[hand] him over to [her] God," denoting the prevalence of religion and belief in God among young adults.

Participants also addressed the influence of religion on their sexual beliefs. Mark stated, "The church don't really preach about STDs but encourage church members to stay away from fornication, meaning you [can't] have sex with a person you are not married to as this is a moral sin against God." Rivers added, "Churches only talked about sex as a sin against God's plan for a good marriage." Participants' knowledge of God and religious beliefs had bearing on what they were taught regarding sex.

Research Question 1

Research question 1 was: What beliefs do Nigerian young adults (ages 18 to 24) have regarding STDs? I asked the participants to share their beliefs regarding STDs with me. I found that regarding STDs, Nigerian young adults believe STDs are not discernable by looks; that they are contracted through sex with multiple partners and without condoms; that they are increasing in prevalence; and that they are more common in young adults. The following sections describe these themes.

STDs are not discernable from looks. Participants agreed that STD infection was not perceptible by looks. Bank stated, "STD is not written on people's face." Six participants offered statements that reflected this concept that a person could not tell if another individual had an STD by looks.

Participants noted that coupled with the inability to look at a person and determine if he or she is infected with an STD, individuals infected with an STD may decide to withhold information related to their status. Charles stated, "You see some of

the STDs may occur without signal. It's not even written on people's face and people may not even tell you they have it." Grace reiterated this thought, placing the issue within the context of sexual relations between young women and older men, stating, "You know STD or HIV is not written on people faces, some men even when they know they have those diseases will never share with the girls."

STDs are contracted through sex with multiple partners and without condoms. Nigerian young adults in this study believed that STDs were contracted when individuals opted to have multiple sexual partners and engage in sex without condoms. Victory acknowledged the role of multiple partners in the spread of STDs, stating, "I know too it can be prevented with the use of protection like the use of condom and if a person has only one sex partner instead of multiple partners."

Participants also indicated that unprotected sex with a partner who engaged in sex with multiple partners could lead to infection. Peter explained: "The perception is that guys get the disease from their girlfriends who may have multiple partners. Who else will I get from if not from my girlfriend?" Participants thought that maintaining one partner and using protection could combat the spread of STDs. Eko stated: "Some people get it not through sex but some get it through unprotected sex. That is the people who don't want to use condom to protect themselves." Eko provided several alternative methods to contract an STD, including transmission from mother to child and unsafe practices when dealing with blood.

Lack of protection and multiple sexual partners were widely acknowledged as driving factors in spreading STDs. Several male participants highlighted a relationship in

which young adult women would engage in unprotected sex with older and younger men, and thereby place young men at an increased risk for STD infection. Charles stated:

> Because female tend to have multiple partners so I do believe female have a greater risk that the male. Multiple partners because they aim at getting what they want in life. So some of the girls use money they got from these men to sponsor themselves in college. That's why I believe females are more vulnerable to STDs than males. And even though they have older men as partners, they still have younger men in their lives too. This is where some of us are trapped.

Because of their financial contributions to the young women, the older men wielded an element of control over the women and leveraged it through insisting on sex without protection with the young women. This practice resulted in STD infections moving fluidly across three spheres of individuals; older men, young women, and young men. By choosing to engage with multiple partners unprotected, participants reported that these young women were contributing to a rising incidence of STD infection among young adults.

The rate of STD infections is increasing. Participants noted that STDs are increasing in prevalence among young adults in Akwa Ibom State. Bank said: "I think despite the STD awareness in the state STD among young people especially here in the campus is increasing- why do I say that? Because almost every day friends will talk to you about contracting the disease." Despite knowledge regarding STDs, young adults were continuing to engage in risky behaviors that aided in the spread of STDs. Lisa detailed how these risky behaviors converge to create an atmosphere where STD

infection rates can continue to increase in spite of the availability of condoms and other contraceptives. Lisa stated:

> I think too lot of young people have the disease because they have many sex partners some may like to use condom some may not how do you even know who has or not. Gonorrhea is not written on people faces and I don't know a man there that will meet a girl and say see I got gonorrhea let have sex no one will do that. So if a man has it and sleep with more than one girl and some girls too will sleep with other men who also will not like to use condom and the transmission continues.

Young adults' participation in unprotected sex, coupled with a lack of knowledge related to their partner's status, constructs an environment where STD infection can increase.

STDs are more common in young adults. Participants remarked that young adults are prone to contracting STDs. Rivers stated, "Young people are the most vulnerable to contracting the disease because of the curiosity to explore sex as they get through puberty stage of life." Because puberty is a time of changing bodies and increasing hormones, young adults want to explore sex. Victory agreed, "I know too that young people like me are most vulnerable because of body development I mean puberty and the [anxiousness] to explore sex."

This spirit of exploration is accompanied by a lack of information from adults regarding safe sex and how to responsibly engage in sexual activity. These factors

converge to construct an environment where STD infections are more common. Peter said:

> At that young age, you want explore sex. And even your body might be telling you to go have sex. I was never told about sexual diseases as I grew up in the rural village where talking about sex is a forbidden topic.

These young adults, lacking knowledge but equipped with sexual desire and an opportunity to engage, were vulnerable to STD infections.

Research Question 2

Research question 2 was: What role does cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State? Responses related to this research question indicated that as young adults gained more knowledge and experience, they embraced condom use. Additionally, family and other adults focused on abstinence when communicating sexual information to young adults. As a result, there was a lack of information regarding safe sex. The following sections detail these themes.

Experience contributed to condom use. Young adults gained the information and resolve necessary to embrace safe sex and condom use through experience. According to Mark:

> Before I wasn't comfortable to use condom but today with the sexually transmitted disease spread now, I must use condom. It's only a stupid man will have sex without condom. I tell my friends save your life- use condom.

Because of the prevalence of STDs, Mark insisted that condoms were a mandatory component of his sex life. He acknowledged that condoms not only assisted in avoiding

infections, condoms might also save a person's life. Peter stated that the prices of condoms were worthwhile in an effort to safeguard his future, saying: "Although condom is expensive, if you need sex-you need condom or one get disease or get a wrong girl pregnant and mess the future. With my experience now, no condom no sex! I no want die soon." Young men were not the only participants insisting on condom use in the sample. Bank stated, "Like I mentioned before, it's about my safety and the safety of others around me-so condom use is important for me if I must protect myself against STDs." The young adult women had also embraced an attitude that placed importance on using condoms to protect themselves. Experience with infection and seeing how prevalent it was among peers influenced young adults to embrace using condoms. While this experience contributed to increasing condom use and STD prevention, it does run in conflict with cultural transfer of knowledge that suggest abstinence from sexual relationship until marriage.

Focus on abstinence. Participants indicated that information related to sex was limited to reinforcing abstinence. Mark stated, "In my culture, parents don't talk about sex to their children in this part of the community. I learned it from a friend. It's even taboo to even talk about sex when the elders are there." Within Mark's community, sex was not a topic for consideration. Families and elders instead focused in instilling abstinence in youth. Mark continued:

> What was handed orally was abstinence. That's the culture here. The only shared knowledge is what my mom practiced according to her complete abstinence that

> not only preventing unwanted pregnancy but prevent one from getting disease like STDs or HIV.

Young adults learned to engage in abstinence to prevent pregnancies and STDs. Grace reported that she received a similar message from her family, stating, "Till today, the only shared culturally knowledge from my family- complete abstinence to unwanted pregnancy that ultimately prevent one from getting HIV/Aids or STDs that we are talking about."

Without comprehensive information related to safe sex from their families and communities, young adults gained their knowledge from other sources. Participants reported that they received information related to STD prevention and sex from peers in the absence of information from their families and communities. Peter discussed his perception regarding his mother's lack of knowledge of condoms. Instead, he received his first information related to condoms from an older boy. Peter stated, "Condom was not available and I don't even think my mom know about condom. I started hearing about condom from a boy that was more matured than some of our friends. I think I was 16 that time." Jos had a similar experience where it was not until she left her community that she gained exposure to knowledge related to safe sex. Jos stated:

> Although- my parent never mentioned STDs prevention in any form, the practice of abstinence continues to be passed on. Because of this I never had sexual knowledge until I turned 17 and not until I left the community to the town and associated myself with wrong group of guys. Sex was never encouraged when I

> was growing up therefore, the issue of condom use as a protection was never mentioned by family members or other people in the community.

Young adults, after becoming associated with new communities, received information that could inform their sexual decisions as they engaged in premarital sex.

Research Question 3

Research question 3 was: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State? Participants described how peer pressure affected their condom use. The young adults reported that peers influenced young adults to engage in the same type of sexual behaviors as they engaged in, which was often unprotected sex. The following sections further detail this theme.

Peers encouraged young adults' sexual behaviors. Because young adults often did not get information related to sex from their families, their peers provided much of the information that affected their approach to STD prevention. Mark explained his initial contact with sexual material:

> My parent or anyone in the family never talked to me about sex. It's a no go area. For one, my mom is an elder in the church and my dad was a minister until his death. The church has been the family affair in the community. Engaging in such sensitive topic can never happen in our community. I learned about sex from a friend who brought a *Playboy* magazine with [naked] women.

For Mark, because of his parents' positions within the community, a discussion on safe sex and STD prevention was not an option. His peer provided his initial interaction with sexual content.

It was not uncommon for peers to not only encourage young adults to have sex, but to also influence them to have sex without protection. Summer stated, "You will see friend recruiting friends for men or to sleep with other men and she will get paid. This is college life." Peter described an experience where a friend encouraged him to have sex with his girlfriend's friend and not to use a condom. Peter stated:

> If you go to a party, you don't want to be sideline otherwise other will like you as momo, that is being stupid. In my personal experience, my friend that has had sex before had two friends-one was his girl and the other was a friend to his girl so he asked to go for it. I requested for condom and he said [no] matter I should do it. So I didn't want the girl to look at me as one big momo [*stupid*]… I did it and befriend the girl for year then broke up with her because she was seeing other men.

To avoid looking "stupid," Peter was willing to engage in unprotected sex.

Peers provided influences that did not reflect care or concern for the well-being of their acquaintances. Summer stated, "The friend won't care about protection or the man you are meeting all they care is getting paid for connecting you with a man." Grace described how a girl she was acquainted with encouraged her to have sex with a gentleman the girl knew. Grace detailed the following:

> [Of] course, friends or peers as you called will lure them to sex without using condom. I went through this and I will never forgive this girl She knew about condom and I saw condom with her many times. She was actually the one who encouraged me to have sex with the man who was a friend to her boyfriend that night. She arranged me for him and got paid. This is still so painful up till today.

This deceit formed a painful memory for Grace. Without the influence of mature adults to encourage young adults to make wise decisions related to safe sex, they were left to proceed under the advice of their peers. This advice may lead young adults to make unsafe decisions that can threaten their well-being.

Research Question 4

Research question 4 was: How do males and females differ in their perception of STD transmission? Participants provided information regarding differences in perceptions related to STD transmission by gender. Males perceive that women are more vulnerable to STD infections and prone to infect their partners. Both women and men perceived that their community, partners, and peers would treat them poorly because of infection. Finally, women perceived that they had a higher chance of infection because males dominated sex. The following sections describe these themes in detail.

Males perceive that women are more vulnerable to STD infections and prone to infect their partners. While STD does not discriminate between male and female, there is a considerable difference in perception of incidence of STDs among female by male participants. Among 10 males who were interviewed, 90% reported female vulnerability to STDs because of having multiple partners including older men. Peter

acknowledged “The perception is that guys get the disease from their girlfriends who may have multiple partners. Who else will I get from if not from my girlfriend? I trusted her and only use condoms to prevent pregnancy”.

Similarly, John stated:

> I believe that STD doesn’t care whether you are a male or female as long as the person has sex without a condom or engaged in unprotected sex activities. I do believe female has a greater risk that the male. And so they I mean females should even be more aware of the disease as the females are more vulnerable to most disease than men because of toilet use. In our society male tends to be the dominant in sex and so tend also to be in control of when to use condom.

Females who have older men as partners for financial reasons are more likely to engage in risky behaviors, including having multiple partners and unprotected sex. Charles stated:

> The issue is one may have it without knowing or may know, but intentional pass on to other people. Because female tend to have multiple partners so I do believe female have a greater risk that the male. Multiple partners because they aimed at getting what they want in life. So some of the girls use the money they got from these men to sponsor themselves in college. That’s why I believe females are more vulnerable to STDs than males. And even though they have older men as partners, they still have younger men in their lives too. This is where some of us are trapped.

STDs such as syphilis and gonorrhea are often more difficult to diagnose in female than men, placing women at far higher risk of getting STDs and prone to infect

their partners. Moreso, the risk of getting an STD infection increases with the number of sexual partners. Thus, the probability of meeting an infected STDs partner increases with increasing sexual partners.

Women perceived that they had a higher chance of infection because males dominated sex. All the female participants cited unequal power in sexual relationships as obstacles to condom use and increasing STD infection among females. Happiness stated:

> With men that don't want to use protection, they are the one that sponsor girls and most girls are vulnerable of contracting disease from them. You know too that men dominate sex in our culture. I think the burden of STDs are mostly on women because they are powerless. So as a female you don't have control of condom use. The stupid man that gave me gono told me he never used condom because of his traditional beliefs and I was stupid to believe him just because of money. Can you imagine how many of these men are out there deceiving young girls in this campus?

In agreement with Happiness, Sarah stated:

> For me, it's a natural thing for males to dominate sex. I don't have a problem with it. It's our culture here and some men, even lie to you that their culture don't favor the use of condom. Women are required to submit to men in a relationship. Think about it if you need money and you catch a guy who can sponsor you, you can't pressurize him to use condoms because you want to keep him.

As cited by the female participants, the cultural value of women's passivity and subordination diminish the ability of young females to protect themselves, to refuse unprotected sex, and to negotiate condom use against STDs.

Women and men perceived that they would be treated poorly because of infection. Across both genders, participants stated that they were or would be treated poorly because of infection. Responses included being denied by their partner and friends and being shamed on social media. David recounted an encounter with a young woman after he revealed that he was infected with gonorrhea. David stated:

> But once I contracted gono from a casual friend I talked to myself that never will I have sex without protection. The shame I got that day was terrible. Can't you imagine going to the girl who gave you the disease and she denied it and asked thugs to beat you up and I have to run for my dear life as if the infection was not enough.

Bank experienced denial from a female friend after she revealed that she had contracted an STD. Bank explained:

> I called my friend to tell her of my experience who right [away] denied knowing me or what I was talking about. She even defended the man that I got it from another man- trying to disgrace me that I sleep around with anyhow person and get HIV. This was so shameful.

Bank's experience was common; several other participants found that when they shared with their partner or friends that they were infected, the individuals denied their story or even having been involved with them. Happiness, after having unprotected sex

with a man who said he did not need to use a condom because he only slept with his wife, was infected with an STD. After her infection, she informed the man and his niece, who was Happiness's friend. Happiness reported:

> When the man came, my roommate left the house and at that point I had unprotected sex with the man. The man said we didn't need condom as he only keeps to his wife so I believe and trusted him. I knew I wasn't going to get pregnant but never thought of getting STD from such a nice man. The sad part is that the man denied ever having sex with me when I approached him that I contracted the disease. He told me it was a yeast infection from the toilet and his niece supported him.

This denial caused Happiness emotional distress, and she eventually ended her friendship with the girl because of the experience.

Participants also reported that others would discuss individuals' STD infection via social media. Imo stated, "No one will talk to you again or some of the girls may go to the length of putting it on the social media." Public airing of their status directly violated the desire for confidentiality regarding STD infection. According to Jos, "If you walk to the campus clinic now before you know your name will be on the social media that you contracted disease and even your friend will treat you as shit."

Participants noted this public airing and embarrassment as one of the stigmas associated with becoming infected and letting other individuals know about personal health status. Eko said, "Here, whatever sexual disease you talk about has stigma even if

it's a toilet infection once you tell your friend, trust me it will be on the [social media]." This violation of individuals' private information worried participants in the sample.

Research Sub-Question 1

The first research subquestion was: How can your experience help prevent STD among young adults in Akwa Ibom State? I asked participants to provide suggestions from their experience, regarding STD prevention in the Akwa Ibom State. They provided insight regarding how the government and communities can positively effect change in young adults. The following themes arose from the data: (a) governments should work with communities and schools to increase awareness regarding STD prevention; (b) young women should be empowered to say no and make decisions to secure their sexual health; (c) governments and communities should provide free access to contraceptives and condoms; and (d) the government must regulate retailers who sell condoms and contraceptives.

Increase STD prevention awareness. Awareness was a key solution participants noted. According to Happiness, "Awareness, awareness, awareness there should be more awareness about condom use, the use of contraceptive, and confidentiality." Charles agreed with this, stating, "I wish there is intentional community awareness about the use of condom and other contraceptive pills because of the health risks associated with some of these pills that students may not know."

Disseminating information related to contraceptive and condom use may influence young adults' STD prevention habits. Mark added an important element to the awareness conversation:

> But I think the government should help to create awareness not only for students but also for parents who may not know how to share the information because of the cultural values here or if not the boys or youth will learn it from the social media or from friends.

Arming young adults and their families with a more comprehensive view of STD prevention and a more progressive take on young adults' sexual practices may enable them to begin a multifaceted attack on the spread of STDs. Participants advocated for early education related to safe sex to inform young adults. Bank spoke to this need, stating, "But the government can do more of like campaign or introduce early sex education in school so as children grow up they will be impacted by that education."

Introducing this information early could help ensure that students will embrace the information and utilize safe sex practices as they grow up. Summer explained a detailed view of the importance of an early sex education program:

> Like I said, the government should engage the community on an enlightenment campaign for safe sex to counter balance abstinence the truth is all the young people like me explore sex once the leave their parents to town or when they are with their friends who engage in sex so why not just teach them better ways of having a better sex lives than abstinence-do you know how many young girls died from doing abortion because they never wanted their parents to know they are pregnant. Or once they know the contracted sexual disease like HIV and don't want to face shame. My point is that the early sex education can even help the

> culture keep the girls from unwanted pregnancies or untimely death as in the case of HIV or AIDs.

With the prevalence of the abstinence doctrine, programs must provide safe sex education to the young adults so they are aware of their options outside of unprotected sex. Increasing awareness must also include informing young adults regarding the consequences of their choices regarding sex. Rivers alluded to these serious dangers, stating, “Create more awareness for guys to see the serious health problems associated with these diseases including HIV and AIDs.”

Empower young women. Because participants perceived that young women were at the mercy of the decisions of their male sexual partners regarding condom use, participants noted that empowering young women to make decisions related to their sex lives was important. Grace said, “The government in my experience should empower young girl who are the most vulnerable to this disease to either have access to condom or empower the girls to have their partners do STD check before sex.” Happiness indicated that beyond empowering young women to advocate for condom use, young women need to be empowered to say no to men who attempt to take advantage of them. According to Sarah:

> Although, the government allows condom to be sold everywhere, they should be a training to empower the girls to impose on men to always use protection we need the skills to say no to those men who feels they must control the women’s sexuality.

By equipping women to insist on using protection and to say no to men who refuse to do so, the government will begin to take steps toward decreasing the spread of STDs among young adults.

While most participants indicated that empowerment was key, few provided methods to empower young women. Of those who did provide a method, they consistently indicated that breaking young women's financial dependence on older men could help to empower them. Mark stated, "Government should subsidize tuitions so students should not use sex as money making business to assist them with paying their school fees." In addition to subsidizing education, Jos explained that providing part-time work for young women could help decrease this dependence. Jos stated:

> So in other to reduce the incidence of STDs, government need to lower college fees or even provide environment where people can go to school and still do part time job to help themselves rather than depending on stranger to provide money for them in exchange of sex.

Free access to condoms and contraceptives. Participants reported that increasing access to condoms and other contraceptives could lead to STD prevention. Beauty responded that if governments wanted to increase STD prevention, they could "make [condoms] free." Expanding access to contraceptives and condoms could address a critical need to provide options to unprotected sex for young adults. David stated, "I've already answered this question but I will add that since the government cannot help students with subsidize school tuition, maybe the government can provide free condom to youth or maybe let them pay less." Increasing young adults' access to protection may

make them more receptive to incorporating protection into their sex lives. Mark echoed this thought, stating, “In fact, things like condom and other contraceptives should be free and should be place at designated places in the campus with proper education on how to use them.” Positioning condoms as readily available and easy to obtain is an essential element to decreasing STD infections.

Regulation for condom and contraceptive sales. Finally, participants noted that although condoms and contraceptives were available, participants did not trust the condoms because condom distributors were unregulated. Peter explained, “People don’t care what they sell because they know guys will buy it.” Because of this, participants agreed that individuals had become ill, pregnant, or infected despite using protection. Summer reported a situation in which a young woman became pregnant even though she used a condom with her partner. Summer stated:

> Even [when] the condom is not cheap there are fake ones too and it’s confusing I know a friend who used condom but [still got] pregnant I think the condom leaked because neither the man nor the girl was not ready to have a child as students wanting to better their future.

In this instance, because the condom did not provide the protection it was expected to provide, the two young adults ended up risking their futures. Participants reported that sellers were not concerned with the quality of the product they carried, as long as they were paid. Mark explained the potential effect, stating:

> Even the contraceptive could be expired the Chemist man still sell it to make money. Once the Taskforce Team visit the stores the owner will bribe them with

> money and they don't care to look at the expired drugs like contraceptives some young girls take and bleed and died. Even some of the abortion drug at this stores kills lot of young people.

With such dire consequences, participants indicated the need for government to take an active role in policing the quality of the condoms and contraceptives sold. Summer suggested that the government take an active role in policing what is sold, stating, "The government also do more than allowing condom and other contraceptive sold in all corners here but to look at the quality of what is being sold including the expiration." Monitoring quality and expiration dates could circumvent some of the dangers young adults faced from using contraceptives that are not safe. Summer added:

> I know the government is trying but they need to do more- monitor the stores to ensure they are selling quality contraceptive drugs. I think so the government should do more or educating the youth on reading the drug label like how to know the good ones from the fake ones. All these can save lives.

Increased oversight and monitoring of sellers could not only save the lives of the young adults who embrace using protection, but also increase usage among those who do not use protection because of a lack of confidence in the products available for sale.

Summary

Through this qualitative phenomenological study, I sought to explore the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among young adults in the Akwa Ibom State of Nigeria. Participants provided insight regarding their beliefs and the influence of culture, families, and other factors on

STD prevention. When asked about their beliefs regarding STDs, participants responded that (a) they believed STDs are not discernable from looks, they are contracted through sex with multiple partners and without condoms; (b) the rate of STD infections are increasing; and (c) STDs are more common in young adults because they are in a period of exploration.

The role of cultural transfer of knowledge in STD education contributed to condom use. For example, the transfer of knowledge from families and adults to young adults focused on abstinence. When asked how peer pressure affects use of condoms as an STD prevention measure, participants responded that peers influenced young sexual behaviors. Regarding how males and females differ in their perception of STD transmission, women and men perceived that they would be treated poorly because of infection. Finally, the young adults posited that there should be increased awareness regarding STD prevention, young women should be empowered, free access to condoms and contraceptives should be provided to young adults, and the government should regulate condom and contraceptive sales. Chapter 5 presents a discussion of the findings and the implications of the findings on research and practice.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among the young adults in Akwa Ibom State of Nigeria, using the SEM. According to the WHO (2003), two-thirds of all STDs occur among youth. The high-risk sexual behaviors of young adults, such as engaging in sexual activities without using protection such as condom as well as having multiple sex partners, contribute to these high rates. The risky behaviors put young adults at greater risk of STDs, resulting in serious consequences associated with infection, including infertility (Anorlu et al., 2005; Nnoruka & Ezeoke, 2005; Panchaud et al., 2000; Prinstein, Meade, & Cohen, 2003; Udofia et al., 2012). While there is a need for greater public awareness of sexually transmitted diseases, including HIV, there is an even greater need to approach intervention and prevention activities from a cultural perspective, including the integration of the government's roles. In many developing countries, issues of sexual and reproductive health among young adults are not a government priority (WHO, 2006).

In order to investigate the perceptions of STDs and the potential factors responsible for the increased incidence of STDs among the young adults in Akwa Ibom State of Nigeria, this qualitative phenomenological study addressed the following research questions:

RQ1: What beliefs do Nigerian young adults (ages 18 to 24) have regarding STDs?

RQ2: What role does the cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State?

RQ3: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State?

RQ4: How do males and females differ in their perception of STD transmission?

Additionally, there was a subquestion that warranted being addressed further, which was:

RSQ1: How can your experience help prevent STD among young adults in Akwa Ibom State?

Interpretation of the Findings

This subsection of the study presents the conclusions from the findings of this qualitative phenomenological study that answer the research questions and subquestion. The data collected from the interviews with the participants provided the findings. Also, this subsection includes information on how the findings substantiate the theoretical framework for this study and correlate with the prevailing body of knowledge on effective practice.

Research Question 1

RQ1: What beliefs do Nigerian young adults (ages 18 to 24) have regarding STDs?

In addressing research question 1, participants shared their beliefs regarding STDs with the researcher, resulting in five key themes to emerge from the interview process: (a) STDs are not discernable from looks, (b) STDs are contracted through sex with

multiple partners and without condoms, (c) the rate of STD infections is increasing, (d) STDs are more common in young adults because they are in a period of exploration, and (e) girls are more vulnerable to infections because of their sexual activities with older men.

STDs are not discernable from looks. Participants agreed that STD infection was not perceptible by looks, asserting that they could not determine whether an individual was infected with an STD based on their appearance. Participants Bank and Beauty both related that it was common for the older men with whom they had slept to insist that they did not have STDs, so it was not necessary for them to use condoms. Young women were afraid to ask, as they would not be rewarded for having sex with the older men. The women's desire to gain the financial benefit of their involvement with older men outweighed their insistence that the men used protection for fear that the men would find another girl who was willing to have unprotected sex.

The findings of this theme were present within previous literature. For example, most STDs, including chlamydia, gonorrhea, syphilis, and trichomoniasis, are symptomless, and some STDs can increase the risk of HIV acquisition (Onokerhoray & Maticka-Tyndale, 2012; Udofia et al., 2012). Panchaud et al. (2000) suggested that STDs and associated health risks have grievous consequences for young adults if not tackled with sustainable intervention.

STDs are contracted through sex with multiple partners and without condoms. Nigerian young adults believed that individuals contracted STDs when they opted to have multiple sexual partners and engage in sex without condoms. Participants

Jos and Victory reported that STDs spread when people have multiple sex partners and choose not to use condoms. Participants also asserted that as long as one partner used protection during intercourse, there was a significant chance of reducing the transmission of STDs. Lack of protection and multiple sexual partners were widely acknowledged as driving factors in spreading STDs. Several male participants highlighted their belief that females were more prone to have multiple partners and engage in unprotected sex.

Oyediran et al. (2011) asserted that condom use is much lower among males aged 15-19 years than among those aged 20-24 years and that young adults at the beginning of sexual exploration tend to be more vulnerable to STDs because of unprotected sex. Despite the knowledge of STDs and associated health risks including HIV, young adults' condom use and other contraception remain relatively low because of personal perceptions of risk. Oyediran et al. (2011) evaluated predictors of condom use among never-married males aged between 15-24 years. In the study, 43% of participants were sexually active with a 15% use of condoms during their first intercourse.

The rate of STD infections is increasing. Participants noted that STDs are increasing in prevalence among young adults in the Akwa Ibom State. Despite the knowledge with which they were equipped with regarding STDs, young adults continued to engage in risky behaviors that aided in the spread of STDs. Participant Bank asserted, "I think despite the STD awareness in the state, STD among young people, especially here in the campus, is increasing; why do I say that because almost every day friends will talk to you about contracting the disease." Green (2003) pointed out that young adults are exposed to early sexual activities, and lack of sex education to provide appropriate

information increases the young adults' vulnerability to acquiring STDs (Crosby & Danner, 2008; Voisin & Bird, 2009). Young adults' participation in unprotected sex coupled with a lack of knowledge related to their partner's STD status, constructed an environment in Akwa Ibom State where STD infection can flourish.

Young adults in developing countries such as Nigeria have much higher rates of STDs compared to their counterparts in other developing and developed countries (CDC, 2010; Green, 2003). The WHO's (2003) comprehensive study on STDs predicted that more than 1 million people acquire a sexually transmitted disease every day. According to the study, every year an estimated 5 million people contracted one of the following four STDs: chlamydia, gonorrhea, syphilis, and trichomoniasis (WHO, 2003). In Africa, the estimated total number of new cases of the four STDs in 2008 was 92.6 million (WHO, 2008). According to a recent report from the WHO (2013), there is an increase in STDs in Sub-Saharan Africa. However, the report also noted a decrease in STDs in South Africa and neighboring countries (WHO, 2013).

STDs are more common in young adults because they are in a period of exploration. Because puberty is a time when the bodies are beginning to go through changes, hormones increase and young adults are wont to explore sex. Among youth in Akwa Ibom State, this spirit of exploration is accompanied by a lack of information from adults regarding safe sex and how to responsibly engage in sexual activity. These factors converge to construct an environment where STD infections are more common. These young adults, lacking knowledge but equipped with sexual desire and an opportunity to engage, were vulnerable to the dangers of unprotected sex.

Young adults are energetic and curious about the social environment, including the exploration of sexuality (Onokerhoraye & Maticka-Tyndale, 2012). Nearly half of the world's population of youth under the age of 25 are vulnerable to STDs, and two-third of that population live in Sub-Saharan Africa, including Nigeria (Khan et al., 2012; Onokerhoraye & Maticka-Tyndale, 2012). Given this, factors such as culture and socioeconomic status influence young adults' vulnerability to STD transmission in Nigeria (Olugbenga-Bello et al., 2010). They are more likely to experiment with risky behaviors that promote STDs/HIV transmission such as early sexual activities including multiple sexual partners, and inappropriate or lack of use of condoms and other contraceptives. Other reasons for this increased risk include the use of drugs and engaging in sex for economic reasons (Olugbenga-Bello et al., 2010; Onokerhoraye & Maticka-Tyndale, 2012).

Female participants in this sample were more vulnerable to infections because of their sexual activities with older men. Participants overwhelmingly noted the increased vulnerability to STD infection faced by young adult females due to their relationships with older men. Thirteen of the individuals in the sample addressed, either directly or indirectly, the practice of young women trading sex for money and goods with older men.

Because young women rely upon older men for goods and money, these older men can exert their control and insist that they do not use condoms, which contributed to the increased vulnerability to STD infection in young women. The perception of female vulnerability to STD infections has been reviewed within the recent literature (Akwaowo & Ekanem, 2012; De Genna et al., 2011; Olugbenga-Bello et al., 2010; Onokerhoraye, &

Maticka-Tyndale, 2012). Young adult women are three times more likely to contract STDs, including HIV, and 2.3% of young adult women have suffered from various STDs compared to young adult men, of whom 0.8% suffered from various STD diagnoses (Sedgh et al., 2009).

The young adults' beliefs regarding STDs are consistent with the literature review and the adoption of the SEM. Theorists of SEM posit that there are multiple levels of influence on individual health behaviors (Schwartz et al., 2011). The SEM suggests that exposure to unprotected sex and a lack of information from adults regarding safe sex play a significant role in the risk of acquiring STDs. The community and social contexts perpetuate these conditions, thereby increasing the risk that young adults will contract STDs. Analysis of the participants' responses on their beliefs about STDs revealed a convergence of factors contributing to sexual risk, including the effects of socioeconomic changes in the community and specific cultural and biological dynamics.

Research Question 2

RQ2: What role does the cultural transfer of knowledge play in STD education among young adults in Akwa Ibom State?

In addressing research question 2, participants reported on the role cultural transfer plays in STD education, resulting in two key themes to emerge from the interview process: the transfer of knowledge is focused on abstinence and lacks information regarding safe sex; and as young adults gained more knowledge and experience they embraced condom use.

The transfer of knowledge is focused on abstinence and requires information regarding safe sex. Participants indicated that information related to sex was limited in scope to reinforcing abstinence, as families and elders instead focused on instilling abstinence in youth. Young adults learned to engage in abstinence to prevent pregnancies and STDs. Without comprehensive information related to safe sex from their families and communities, young adults gained their knowledge from other sources. Participants reported that they received information related to STD prevention and sex from peers in the absence of information from their families and communities. Young adults, after becoming associated with new communities, received information that could inform their sexual decisions as they engaged in premarital sex.

Stigmatization of sexual health issues related to traditional and cultural values has led to a lack of political will to tackle STD intervention in many countries, including Nigeria (Oyelese et al., 2005). As such, many in Nigeria lack proper education regarding safe sex because of limited knowledge about STD transmission and associated health risks. Specifically, cultural factors were cited as contributing factors for lack of or limited sex education specifically in developing countries like Nigeria (CDC, 2011; Olugbenga-Bello et al., 2010; Udofia et al., 2012). Despite the increase in STD awareness, education about STD transmission and associated health risks remained low, especially in rural areas where cultures prevent open discussion of STDs (Asekun-Olarinmoye, 2011; Oyeyemi et al., 2011).

Nigeria, like many other countries, is culture bound, and resultantly, Nigerians do not openly discuss issues surrounding sex. Most schools do not incorporate sexuality

education, and many young adults fill in the gaps with information from peers who may not have the right information (Oyeyemi et al., 2011). The lack of coordinated effort to systematically educate young adults regarding safe sex culminated in the increasing STDs among the young adults in Nigeria (Dienye, 2011).

As young adults gained more experience often after being infected with STDs, they opted to use protection. In this manner, experience imparted the information and resolve necessary to convince participants to embrace safe sex and condom use. The female participants also adopted an attitude that placed importance on using condoms to protect themselves. Experience with infection and seeing how prevalent it was among peers influenced young adults to embrace using condoms. Cardoza et al. (2013) reported that the social environment influences young adults' attitudes toward condom use. As such, Oyediran et al. (2011) reported that 72-90% of young adults acknowledged the awareness of contraception. Despite knowledge of STDs and associated health risks, including HIV, young adults' condom use and other contraception remain relatively low because of low personal perceptions of risk (Oyediran et al., 2011).

As alluded to in chapter two of this study, young adults' sexual health is affected by the social contexts in which these individuals live; thus, Bronfenbrenner's (1979) SEM knowledge of cultural values of the individuals' background is important when investigating sexual risk-taking behavior (Schwartz et al., 2011). The aforementioned components of culture as explained in the SEM paradigm suggest the interconnectedness of these factors. This study revealed the male dominance of sexual relationship and the support of abstinence as formal cultural practices that contributed to STD risk. Indeed,

this revelation demonstrated the impact of the cultural transfer of knowledge noted in the high rate of STD transmission among young adults in Akwa Ibom State. Therefore, SEM is the appropriate lens through which to view this phenomenon prevention at the individual, interpersonal, community, and societal levels.

Research Question 3

RQ3: How does peer pressure affect the use of condoms as an STD prevention measure among young adults in Akwa Ibom State?

In addressing research question 3, participants reported on the role peer pressure played in regards to condom use, resulting in one key theme to emerge from the interview process: peers encourage young adults to engage in sexual behaviors similar to their own, which often include unprotected sex.

Peers encourage young adults to engage in sexual behaviors similar to their own, which often include unprotected sex. Because young adults often did not get information related to sex from their families, their peers provided much of the information that affected their approach to STD prevention. Peers also encouraged young adults to engage in sex. Without the influence of mature adults to encourage young adults to make wise decisions related to safe sex, they proceed under the advice of their peers. This advice may lead young adults to make unsafe decisions that can threaten their well-being.

The influence of young adults' peer influence and their sexual risk behavior is consistent with Bronfenbrenner's (1979) SEM explanation of interpersonal level influence. The interpersonal level referred to interaction with a person's immediate social

circle that could increase exposure to health risks. The experience of young adults in this study is complicated by a variety of both positive and adverse influences. This study revealed that young adults tend to seek out peers like themselves and can be influenced by association.

Research Question 4

RQ4: How do males and females differ in their perception of STD transmission?

In addressing research question 4, participants provided insight regarding differences in perceptions related to STD transmission by gender, which led to the emergence of three themes: women were perceived to be vulnerable to STD infections and prone to infect their partners, women and men perceived that they would be treated poorly as a result of infection, and women perceive that they have a higher chance of infection because men dominate sex.

Women were perceived to be vulnerable to STD infections and prone to infect their partners. Participants perceived that women were vulnerable to STD infections because of toilet use and their involvement with older men. Participants shared that young women's sexual activities with older men rendered them more vulnerable to STD infection. As mentioned previously, young women frequently engaged in sex with older men as a means to gain financial benefit. These men wield a position of power because of their contribution to young women's lives; therefore, young women do not insist that they use condoms. Because of this power dynamic, these young women can become infected and, in turn, infect their other partners.

Women are powerless in negotiating sexual activities, condom use, and other related factors leading to high rates of STDs. Within Nigerian society, however, men view women as being responsible for causing STDs and blame women if an infection occurs (Aboyeji & Nwabuisi, 2003; Jombo et al., 2006; Oyelese et al., 2005). Because of this mindset, it is essential that traditional institutions embrace the integration of sex education into the culture. Olugbenga-Bello et al. (2010) indicated that limited resources and the government's perceived inability to invest in sex education and reproductive health without creating conflict with traditional institutions have complicated efforts to combat STDs. The more the government puts off sex education integration, the longer the mindset of women being prone to and responsible for infecting their partners will endure.

Women and men perceived that they would be treated poorly as a result of infection. Across both genders, participants indicated that they were treated poorly as a result of infection. Responses included being denied by their partner and friends and being shamed on social media. Several participants found that when they shared with their partner or friends that they were infected, the individuals denied their story or even having been involved with them. Participants also discussed how individuals would share their STD infection with others via social media. The public airing of their status directly violated the desire for confidentiality. Public airing and embarrassment were one of the stigmas associated with becoming infected and letting other individuals know about STD status. This violation of individuals' private information and confidentiality worried participants in the sample.

Stigmatization and discrimination have also been reported as factors constituting a serious impediment to reducing STDs and HIV in Nigeria and elsewhere (Ijadunola et al., 2007). The stigmatization and discrimination associated with STD diagnoses occur at two levels: societal and individual. At the societal or cultural level, the family or community may reject the individual (Arowojolu et al., 2002). At the individual level, individuals may experience feelings of worthlessness and stigmatization that discourage young adults from reporting STDs to clinics for diagnosis and treatment (Ijadunola et al., 2007). Udofia et al. (2012) noted that about two-thirds of young women failed to disclose their conditions to family members because of fear of stigmatization. Olaseha et al. (2004) found that stigmatization stood out as an impediment to reporting STD symptoms and subsequently seeking treatment from a clinic; instead, individuals sought treatment from close family members or friends.

Women perceive that they have a higher chance of infection because men dominate sex. Participants repeatedly noted the control that men wielded over sex and how it increased women's chances of infection. With young women at the mercy of their male suitors, they did not feel empowered to refuse to have sex with men. The domination of sex by men and subsequent ramifications for young women left them more vulnerable to STD infection.

This theme existed extensively within the literature on the subject. As previously noted in an earlier theme, Anorlu et al. (2005) reported that men tend to control women's sexuality, as they have the right to determine the terms of the relationship. Women are powerless in negotiating sexual activities, condom use, or other risk factors, leading to a

high risk of STDs (Oyelese, Onipede, & Aboderin, 2005). Responsibility and blame for STDs fall on women in Nigerian culture, despite their lack of power in negotiating sexual activities (Aboyeji & Nwabuisi, 2003; Jombo et al., 2006; Oyelese et al., 2005). Women's inability to make their reproductive health decisions is a reflection of their alienation or classification.

This social construction of sexuality and reproductive health in Nigeria explains why most health services for STDs are adult-oriented and why young adults are most vulnerable to STDs (Udofia et al., 2012). Given the notion that men tend to dominate women's sexuality in Nigeria, Bronfenbrenner's (1979) SEM is an appropriate lens through which to view this phenomenon. By dominating women's sexuality, men essentially extend their influence across the spheres of the community and the individual, establishing a precedent wherein women are valued less than men.

Research Sub-Question 1

RSQ1: How can your experience help prevent STD among young adults in Akwa Ibom State?

In addressing sub-question 1, participants posited that the government should do more to assist in combating STD transmission in the Akwa Ibom State. As such, the following themes were developed from the sub-question: governments should work with communities to increase awareness regarding STD prevention, governments and communities should work together to empower young women to make decisions regarding their sexual health, free access to condoms and contraceptives should be

provided to young adults, and the government should regulate retailers who sell condoms and contraceptives.

Governments should work with communities to increase awareness regarding STD prevention. Awareness was a key solution participants noted. Disseminating information related to contraceptive and condom use may influence young adults' STD prevention habits. Arming young adults and their families with a more comprehensive view of STD prevention and a more progressive take on young adults' sexual practices may enable them to begin a multifaceted attack on the spread of STDs. Participants advocated for early education related to safe sex to inform young adults. Providing an early immersion to this information can help ensure that students will embrace the information and utilize safe sex practices as they grow up. Safe sex education programs are necessary to address this need in the community. Increasing awareness must also include informing young adults on the deadly consequences of their sexual choices.

Kirby (2001) asserted that involvement with government campaigns could benefit the young adult population, in that the campaign could lead to STD awareness and prevention. Ungar et al. (2013) furthered Kirby's (2001) assertion, in that effective STD education could lead to harmony between the individual and their social environment. When the government gets involved in effective STD intervention education, there is an increased awareness of STD transmission and associated health risks.

School-based STD interventions should increase knowledge of sexuality and reproductive health specifically among young adults (Olugbenga-Bello et al., 2010;

Onokerhoraye & Maticka-Tyndale, 2012; Udofia et al., 2012). Obonyo (2011) specifically examined how government involvement in schools in regards to STD education could be beneficial. The author concluded that a lack of culturally appropriate STDs interventions in Kenyan schools promoted the spread of STDs among the students (Obonyo, 2011). While 98% reported that they had heard about STDs, they could neither associate nor differentiate STD symptoms (Obonyo, 2011). Despite the consensus surrounding the solution of school involvement in sex education, no documented studies examined these factors in conjunction with sound epidemiologic theory and with the mission of demonstrating the interconnectedness of individual-level factors, environmental factors, and the prevalence of STDs.

Governments and communities should work together to empower young women to make decisions regarding their sexual health. Because young women were perceived to be at the mercy of the actions of their male sexual partners regarding condom use, participants noted that empowering young women to make decisions related to their sex life was important. Beyond empowering young women to advocate for condom use, young women need to be empowered to say no to men who attempt to take advantage of them. By equipping women to insist on using protection and to say no to men who refuse to do so, the government will begin to take steps toward influencing the spread of STDs among young adults.

While most participants indicated that empowerment was key, few provided methods to empower young women. Of those that did provide a method, they consistently indicated that breaking young women's financial dependence on older men

could help to empower them. By providing subsidies for education, the government could lessen young women's dependence on trading sex for money.

As previously explored, men tend to dominate sex in Nigerian society, therefore leaving women out regarding condom usage and sexual activities (Anorlu et al., 2005; Oyelese et al., 2005). As such, women take the responsibility and blame for STD infection (Aboyeji & Nwabuisi, 2003; Jombo et al., 2006; Oyelese et al., 2005). If the government were to get involved in various programs that empower women, then there this empowerment could potentially decrease STD transmission rates, in that women would have the strength to stand up for themselves against men who push to have sex without condoms.

The masculine culture encourages Nigerian men to dominate relationships with women so that women have no autonomy regarding their sexual life (Odimegwu et al., 2008; Oladepo et al., 2011). In this unbalanced relationship, a man refuses to use a condom, prevents a woman from using other forms of contraception, or coerces her into unprotected sexual activities, thus increasing sexual health risks (Odimegwu et al., 2008). The limitation of women's autonomy in male-dominated relationships makes it almost impossible to use condoms to prevent STDs and unintended pregnancies (Association for Reproductive and Family Health, 2008; Odimegwu et al., 2008).

This multifaceted issue gives credence to the use of SEM as an underlying theory, in that SEM examines the multiple levels of causation within an individual's actions. In this case, young Nigerian women are raised in a community in which men are valued over women, thereby denying women the ability to choose contraceptives as a means of

protecting themselves. In this particular instance of SEM, there is the sphere of influence crossing the boundaries of the individual, the community, and society at large.

Free access to condoms and contraceptives should be provided to young adults. Participants reported that increasing access to condoms and other contraceptives could lead to STD prevention. Expanding access to contraceptives and condoms could address a critical need to provide options for unprotected sex to young adults. Increasing young adults' access to protection may make them more amenable to incorporating protection into their sex life. Positioning condoms as readily available and easy to obtain is an essential element to decreasing STD infections.

In light of the participants' suggestions for expanding free access to condoms and contraceptives, there are programs in Nigeria that have already begun these courses of action in an attempt to stem the STD transmission rate. Education as a Vaccine against AIDS (EVA) helped create awareness of STDs, HIV/AIDS, and reproductive health by specifically focusing on young people's abstinence (Federal Ministry of Health, 2013). EVA also created a youth leadership component to advocate for government roles such as providing free contraceptives and education for the youths to reduce STDs in Nigeria (Federal Ministry of Health, 2013). Despite all these programs, a significant reduction in STDs transmission among young adults is yet to be seen in Nigeria, specifically in Akwa Ibom state.

The government should regulate retailers who sell condoms and contraceptives. Finally, participants noted that although condoms and contraceptives were available, they did not trust them because they were unregulated. Participants

reported that sellers were not concerned with the quality of the product they carried, as long as they were paid. With such dire consequences, participants indicated the need for government to take an active role in policing the quality of the condoms and contraceptives sold. Monitoring quality and expiration dates could circumvent some of the dangers young adults faced from using contraceptives that are not safe. Increased oversight and monitoring of sellers could not only save the lives of the young adults that embrace using protection, but also increase usage among those who do not use protection via increased confidence in the products available for sale.

Limitations of the Study

It is the assessment of the researcher that the study findings are trustworthy. The qualitative methodology used in this study, specifically, the method of data collection and analysis aligned with the criteria of trustworthiness associated with the qualitative study. The selected young adults, aged 18-24, were appropriate to the study as shared common lived experiences on an increased STD transmission was consistent. Study participants were from specific demographics including socioeconomic status. As such, the study findings offered credibility and confidence.

As indicated in Chapter 1 of this study as a limitation, transferability was accomplished with study sample size of 20 participants (Jette, Glover, & Keck, 2003). The pilot testing research process provided clarity to interview questions (Archibald & Newman, 2015). Similarly, the process of data collection and analysis, including coding and themes, are reliable, attesting to the dependability of the study. Also, the researcher employed an independent coder to ensure validation of the study findings.

The study followed a phenomenological research process to ensure interview consistency and conformity as participants answered the same open-ended interview questions to gather meaningful lived experience about STD transmission. The detailed description of this lived experience further promoted the credibility of this study that conveyed the shared common lived experiences and context of increased STD transmission among young adults in Akwa Ibom State. These processes listed above during the study execution enhanced the trustworthiness of this study.

The study findings are congruent with the previous studies conducted to assess perception of STDs among young people from developing countries, as found in Chapter 2, the literature review. For example, Caico (2014) reported increasing sexually risky behavior among college-aged students; multiple sexual partners (Fatusi & Wang, 2009); and comprehensive sexual awareness (Onokerhoraye & Maticka-Tyndale, 2012; Udofia, Akwaowo, & Ekanem, 2012). Similarly, the relationship between the phenomenon and individual interconnectedness with the larger society (Ungar, Ghazinour, & Richter, 2013), as well as the institutional promotion of abstinence (Mwambete & Mtaturu, 2006), asserted the study's findings.

Recommendations

Upon completion of the study, there are a few recommendations for future researchers who intend to further contribute to this field of study. The findings of this study can guide best practices to assist with understanding the urgency of comprehensive sex education among college students in Nigeria, who are vulnerable to increased STD transmission. The themes gathered from this research-based study can inform a

culturally-centered model of sex education aimed at creating results-oriented outcomes to assist with intervention and prevention of STD transmission. Additionally, research based on the socioeconomic factors with a clear conceptual framework can serve as an intricate promotion of STD transmission that not only addresses community health issues but also provides understanding, promotes intervention, and increases prevention of STD transmission among young adults in Nigeria.

When designing STD intervention and prevention, it is important for service providers to consider shared common experience contained in qualitative studies. This exploration of the perceptions and behaviors of the study population, as well as asserting the cultural determinant and family support, should occur since the perceptions influence the decision of young adults, which subsequently contribute to increased STD transmission. Analyzing these factors can assist with designing culturally appropriate intervention program for the young adults.

Most literature and statistics to date in Nigeria have focused on the individual level approach rather than an integrated approach to infectious diseases; further research on the interconnectedness of an increased STD transmission with societal factors can provide practical and systematic community intervention and prevention of the endemic disease. Further research would address particular areas including stigmatization and access to confidential STD treatment and prevention among young adults. This further study would highlight the reasons for continued increased STD transmission even with methods of prevention. A follow-up research using the SEM to understand young adults aged 15-18 and older youth 25-40 with specific comparisons of gender perception of

STD transmission could further inform intervention and prevention strategies targeting specific populations and demographics in Nigeria.

Aside from benefits to future researchers, there are various recommendations for governments and health departments. The first is that governments should work with communities and schools to increase STD awareness. Government and health agencies can achieve increased STD awareness through education courses for all ages regarding STD prevention, and by empowering young women to say no and make decisions to secure their sexual health. The Nigerian government could also provide free access to contraceptives and condoms, regulate retailers who sell condoms and contraceptives, and provide educational subsidies, so young adult females do not have to engage in sex to subsidize education.

The study highlighted the basic role of peers' influences against the established family institutions and advice regarding sex. Further research would investigate peers' and families' role in the increase of STD transmission. Focusing on particular causal factors such as the vulnerability of young female adults to older, wealthy men could provide health education institutions and policymakers the tools to develop practical intervention and prevention strategies to curb the increasing STD rate among the young adult female population.

Implications

The findings of this study highlight the importance of positive social change. As young adults gained more knowledge and experience, they used condoms and encouraged their friends to use them as well. This empowerment assists young adults to avoid

unwanted pregnancies, develop self-advocacy, and access treatment without stigmatization. As such, abortion and HIV/AIDS rates also decrease with increased knowledge of STDs and their health risks (Caico, 2014). The cultural transfer of knowledge has led to families, communities, and churches either not addressing sex with young adults or only discussing abstinence with young adults, and not addressing condom use or contraceptives with young adults who are sexually active. These findings indicate the need to create interventions that recognize the interconnectedness of the role of individuals, families, community, and the larger society in the process of providing sustainable intervention.

Additionally, the use of Bronfenbrenner's (1979) conceptualization of SEM provides implications for ecological perspectives on STDs within the Akwa Ibom State, as well as around the globe. SEM considers the complex interrelationship between many factors, such as individuals, relationships, the community, and society as a whole. Given that SEM was used to address the factors that put young adults at risk for STDs from a holistic perspective, there are ecological perspectives stemming from the use of SEM as a preventative intervention using a multilevel approach.

Young adults in Nigeria encounter diverse sources of influence that are permeable across different levels of interconnection, which increases the risk of STD transmission among them. These diverse sources include the individual himself or herself, peers, family, cultures, the community, and a lack of sustaining government policy. To reduce and ultimately prevent the prevalence of STD transmission among young adults in Akwa Ibom State, I approached the causation from different levels. Four implications that

emerged were governments should work with communities and schools to increase awareness regarding STD prevention, young women should be empowered to say no and make decisions to secure their sexual health, governments and communities should provide free access to contraceptives and condoms, and the government must regulate retailers who sell condoms and contraceptives. Thus, the findings suggested there is the potential to take a holistic approach at these levels of causation. By doing so, the entire community gains information about the dangers of STDs and can collectively implement solutions aimed at reducing the transmission of said STDs. This social change will be more effective at promoting, adopting and maintenance of STD preventive behaviors among young adults in Akwa Ibom State.

The study serves to empower not only the study population but also the entire larger society and the environment. The positive social change implications of the study include obtaining knowledge useful for community health workers and other researchers who are seeking to improve youths' reproductive health. Key findings could also guide the development of sexual health education courses and comprehensive interventions for at-risk young adults. The implications of this study could also help determine a basis for the development of better communication and negotiation skills among young adults to enhance decision making and sustain safe sex behavior. Thus, the integrated SEM approach adopted by the researcher enhances a collective social change regarding STD transmission in Akwa Ibom State, Nigeria.

Conclusion

This study explored the perceptions of STDs and the potential factors responsible for the increased frequency of STDs based on the lived experiences of young adults with STDs in Akwa Ibom State of Nigeria. Theoretically, the adoption of the SEM to assess perceptions regarding STDs in the Akwa Ibom State of Nigeria allowed the study to influence not only the study population, but the family system, communities, organizations, government institutions, and the world. The SEM perspective offered key insights relevant to understanding the continued increasing STD transmission among young adults rather than from individual level perspective. The findings thus affirmed the interconnectedness of many levels or environmental factors responsible for increasing STD among young adults.

Other key findings included young women exchanging sexual behavior for economic opportunities with older men and not being able to negotiate condom use significantly, which contribute to increasing STDs. Also, the endured stigmatization of STDs and sexual behavior in general prevents an individual's access to treatment. As part of a comprehensive sex education, there is a need to direct awareness to empower young adult women with self-efficacy, giving them the voice to negotiate condom use with men that provide them economic fortunes. Empowerment could also assist in dealing with stigmatization, which could reduce STD transmission.

Finally, with the methodological perspective, the study findings could inform the design of culturally appropriate intervention and implementation of an STD program. Such a program should incorporate the shared experiences that could practically reduce

STDs transmission among the study population. This inclusion could boost the initiation and sustainability of positive social change.

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Appendix A: Phone Interview

Every potential participant who voluntarily responds to the campus poster by calling the phone number listed will go through an initial brief and confidential telephone interview that will last for 2-3 minutes. The researcher intends to recruit 20 potentials participants from the campus. The interview will be conducted by the researcher to determine study participant eligibility. All information obtained will be treated as confidential per Walden University human protection guidelines. If potential participants are found eligible to participate in the study after the phone interview, each potential participant will be assigned confidential identification-coded combinations of letters and numbers that will be used throughout the data gathering process. Further details of the study will also be shared with the potential participants.

Participants will be identified via coded combinations of letters and numbers.

Interview scripts:

Thank you for your call in response to the STD study flyers posted across the Akwa Ibom State Polytechnic campus.

I will be conducting a brief confidential 2-3 minutes phone interview to determine your eligibility for the STD study. The study aims at gathering the information that will lead to culturally appropriate STD awareness among college students between the ages of 18-24. Participants who meet the study participant's requirement will be assigned coded combinations of letters and numbers throughout the study process and will be given

detailed information about the study. Do you have any questions otherwise I will move forward with the following questions:

1. Are you between the age of 18 and 24?
2. Are you an indigene of Akwa Ibom State?
3. Are you a student of Akwa Ibom State Polytechnic?
4. Will you be willing to talk about STDs on a one-on-one interview in a safe and secured location?
5. The interview will be conducted in the English Language. Do you speak and write English fluently?
6. Will you commit to a 45-60 minutes one-on-one confidential interview with this researcher at a secured and safe location?

Appendix B: Interview questions

Interview questions will be conducted by the Researcher and will be in the English language. All participants will be asked the same questions with follow-up prop-questions. Participants will not be given the questionnaire rather it will only be administered by the researcher:

1. What beliefs do you have regarding STDs?
2. How does your cultural background and knowledge influence your understanding and approach to STD prevention? Follow up question—Share your experience with condom use?
3. How does peer pressure influence your approach to STD prevention?
4. How does family influence your approach to STD prevention? Follow up question -How does family influence the use of condom?
5. How does community for example, churches and local organizations influence your approach to STD awareness and prevention?
6. Please share with me how government's role or policies influence your approach to STD prevention? Follow up question -How does government influence the use of contraceptives?
7. Young adults diagnosed with STDs experienced stigmatization or discrimination. Have you experienced stigmatization or discrimination? What could be done to mitigate this challenge?

8. Share with me your experiences about health risks associated with STD? Follow up question- what are the implications of these health risks you alluded to?
9. What are the lessons you have learned that influence your approach to STD prevention? Follow up question -How could these lessons of your experience help with developing STD prevention education strategies aimed at reducing the rate of STD among young adults in the state?
10. Based on your experience with STD and considering the holistic approach (for example, your individual role, peers, family, community, and government) to prevention, what are the solutions you offer to mitigate the rate of STD among young adults in Akwa Ibom State?