

**RELATIONSHIP BETWEEN SOURCE OF SEX EDUCATION AND ATTITUDES
TOWARDS PERSONS LIVING WITH HIV/AIDS: A CASE OF TEENAGERS
BETWEEN THE AGES OF 15-19 DAGORETTI NORTH CONSTITUENCY.**

BY

ALEXANDER KINYANJUI

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DECLARATION

This project is my original work and has not been presented for the award of a degree in this University or any other institution of higher learning for examination.

Signature..........Date.....8th MARCH 2021.....

ALEXANDER KINYANJUI

C50/5184/2017

This research project has been submitted for examination with my approval as the University Supervisor

Signature:  Date: 12th of April, 2021

SUPERVISOR

DR. LUKE O. ODIEMO

Signature:  Date: 13th April, 2021

SUPERVISOR

DR. JOSIAH OKECH OBOTH

DEDICATION

I dedicate this research study to my children Nipher and John. I also dedicate it to my loving parents (also John and Nipher) for always being with me throughout my academic journey and for their constant encouragement and for being patient enough to see me go through my academic struggle in an effort to realize my long-cherished academic dream.

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ABSTRACT

The aim of this study was to investigate the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19. The specific objectives were to determine the influence of the source of sex education on behaviour towards persons living with HIV/AIDS among teenagers between the ages of 15-19, to determine the influence of the source of sex education on beliefs towards persons living with HIV/AIDS among teenagers between the ages of 15-19, and to determine the effect of source of sex education on feelings towards persons living with HIV/AIDS among teenagers between the ages of 15-19. The study used descriptive research design. The populations for this study was the youths aged between 15-19 years in Dagoretti North Constituency. This made a total target population of 3841 respondents. The sample population size (n) was 204 respondents. A questionnaire was used to collect primary data. The questionnaire comprised of questions, which sought answer questions related to the objectives of this study. The data for the study was analyzed both qualitatively and quantitatively. The data collected was keyed in and analyzed with the aid of SPSS. Pearson's correlation coefficient was used to show the strength of the relationship between influence of the source of sex education on behaviour towards persons living with HIV/AIDS, influence of the source of sex education on beliefs towards persons living with HIV/AIDS, and effect of source of sex education on feelings towards persons living with HIV/AIDS to show cause and effect for first and second hypotheses. A regression analysis was used to assess the association between the variables and describe the relationship in percentages to show whether the patterns can be generalized for the third hypothesis. Regression shall was used to show how gender, social economic factors, religion, ethnicity, and prior exposure contribute to the attitudes towards persons living with HIV/AIDS. The study found that people living with HIV/AIDS should never be regarded as an outcast. The study also found that avoiding sex with a person with many partners will help in prevention of HIV/AIDS. The study concluded that internet is of great importance in provision of sex education. The study also concluded that sources of HIV/AIDS infection include unprotected sex. The study concluded that HIV can be spread by sharing needles or syringes with someone who has the virus. The study recommends that educators must provide more than just accurate information about HIV/AIDS. They must be aware of the differences between female and male's attitudes and behaviors with regard to HIV/AIDS.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Sexual education for children and young adults is one of the most hotly debated and emotional issues facing policy makers, national AIDS programme planners, and educators today. Arguments have raged over how explicit education material should be, how much there should be, how often it should be given, and at what age to initiate education. Formal sexual health education for adolescents in developed countries has had a long and chequered history, its fortunes waxing and waning with the changing of governments and the tide of public opinion (Holmstedt, 2014). Those changes are reflected in the content and ideologies that underpin school sexual health education curricula and the public controversy they often engender. As a consequence, sexual health education is far from being a homogeneous or unitary concept: it encompasses a wide range of curricula that differ with respect to their aims, scope, implementation, and content (Nazario, 2012). The variety of approaches is reflected in the range of nomenclature used to describe what otherwise is broadly termed sexual health education.

HIV/AIDS is the world's second widely spread communicable disease and the sixth common cause of death globally (WHO, 2014). In recent years, it has received as much attention as other pressing global questions like war, terrorism, environmental degradation among others. Although the number of new infections has decreased significantly on a global scale, the disease continues to pose challenges not only for the healthcare sector but also for current and future societies. It is estimated that more than 2 million children are living with HIV most of whom were infected by their HIV-positive mothers during pregnancy, childbirth or breastfeeding. At the end of 2016, there were approximately 36.7 million people worldwide living with HIV/AIDS.

Additionally, An estimated 1.8 million individuals worldwide became newly infected with HIV in 2016 – this amounts to about 5,000 new infections per day, including children below the age of 15 years. Sub-Saharan Africa (SSA) remains the highest affected region. The WHO (2016) has classified HIV/AIDS as the main cause of adult mortality in Africa. It affirms that about 3.1% and 3.9% of all male and female deaths respectively are caused by AIDS-related diseases. In the same

vein, UNAIDS (2016) fact sheet states that a larger share of the global HIV/AIDS infections is in Africa, South of the Sahara with the prevalence rate highest among the age group 15-19 years. It is for which reason African heads of states declared AIDS as a state of emergency in the continent during the African Development Forum.

Knowledge, attitudes, and practices regarding HIV/AIDS are the cornerstones in the fight against the disease. Adequate knowledge about HIV/AIDS is a powerful means of promoting positive attitudes and engaging in safe practices. The belief that greater understanding leads to more positive attitudes informs many practical initiatives and, indeed, many prevention programs have focused on increasing knowledge on the transmission so as to overcome misconceptions that could prevent behavioural change towards safe practices and also reduce the stigma against people living with HIV/AIDS. Stigmatizing attitudes have been shown to be strongly associated with misconceptions on HIV transmission and are negative attitudes towards people living with HIV (Herek, Capitanio & Widaman, 2002).

The link between knowledge and attitudes has already been documented by the existing body of research. Wodtke (2012) analyzed the effects of education on beliefs about racial stereotypes, discrimination, and affirmative action policies among Whites, Asians, Hispanics, and Blacks and found that education is related to more favourable attitudes toward race-targeted job training. A study by Borsum and Gjermo (2004) on the relationship between knowledge and attitudes regarding HIV/AIDS among dental school employees and students found that knowledge plays a key role in shaping attitudes. Similarly, Diaz-Quijano (2018) found that the level of education on a particular subject could be a key determinant of knowledge of phenomena, as well as attitudes and practices, especially those that involve the integration of community efforts.

Evidently, the assessment of Knowledge, attitudes, and practices among any population is highly necessary for planning the management and prevention of HIV, and as a baseline to evaluate the success of prevention strategies. Studies involving the youth have documented a high level of awareness of HIV/AIDS but knowledge on various specific aspects relating to HIV/AIDS remain poor, with high levels of risky behaviours such as having multiple sex partners and inconsistent use of condom. Despite their engagement in risky behaviours the majority of youths do not perceive themselves to be at risk of contracting the infection (Kim et al., 2016).

According to Avert (2014), schools play a major role in and shaping the attitudes, opinions and perhaps most importantly the behaviour of young people. It is estimated that more than half of all new infections occur before the age of 25 and many of these infections occur because young people don't have the knowledge and skills to protect themselves. Today's generation of secondary school children have been born into a world where HIV/AIDS is an unavoidable reality. These children have many years to be in school; therefore their time in school can help them to prepare for the realities of this pandemic.

Avert (2014) stresses that considering the effects that HIV/AIDS is having youth, addressing the issue through education will be the most cost-effective and efficient ways of reaching young people. At a young age, people have consistent and coherent messages. Earlier studies have also shown that education is the key to an effective response to HIV/AIDS because it has the capacity to accelerate behaviour change among young people, therefore, making them more receptive to prevention messages. The more educated the young people are, the more likely they are to protect themselves and the less likely they are to engage in risky sexual behaviour that exposes them to the dangers of HIV/AIDS. However, research on the effectiveness of different modes and sources of education in battling stereotypes about HIV is still lacking, making it impossible for policymakers to make the most apposite decision when it comes to education strategies. Accordingly, this study seeks to investigate the effect of source of sex education on attitudes towards persons living with HIV/aids and risk behaviours.

1.2. Statement of the Problem

Contentious debates have raged in the past decade regarding whether abstinence-only or comprehensive sexual education interventions are effective and appropriate. Many opinion holders and political leaders have taken their stance based either on their doctrines and evidence-based knowledge. Sex education has been found to have an impact on social behaviour among people in the community (Alphonso, 2014). This has mostly been in connection to the spread of HIV/AIDS among different factions of the society. School-based sex education is an intervention that has been promoted to increase HIV-related knowledge and shape safer sexual behaviours to help prevent new infections among youth.

As sexual debut is common in adolescence, so are the associated risks of engaging in transactional sex, having multiple concurrent partnerships, and experiencing sexual violence and coercion, all of which increase HIV-related risk. School-based interventions are logistically well-suited to educate youth about sexual activity given their ability to reach large numbers of young people in an environment already equipped to facilitate educational lessons and group learning. Despite sex education being seen as an appropriate tool towards the reduction of HIV/AIDS, most of the youth have been ignorant and have had a negative attitude towards it. In addition, most of them have not developed a positive attitude towards people who already have contacted the virus. This has persisted for a long time and it seems to be an issue in great depth. Researchers have contended that the way young people perceive the HIV/AIDS issue will have a great impact on their attitude to people living with HIV/AIDS (Mekou, 2014).

According to Fishbein (2013), the definition of any given behaviour includes at least four elements; the action, the target, the context and the time period during which the behaviour is observed or expected. He furthers that changes in one of these elements also changes the behaviour being observed. In the context of HIV/AIDS education, behaviour change is usually the target outcome. Therefore interventions could be very specific and given a time frame during which change may or may not occur, and of course, there should be monitoring and evaluation to see if learning has had any impact on the desired outcome. Benjamin (2012) stated that schooling can be expanded to include a broader range of cognitive processes, making learning more meaningful by enforcing the educational goals of retention and transfer. This could well be applied in the context of HIV/AIDS education so that learners' knowledge would influence their ability to change attitudes and behaviour.

Previous studies carried out reveal that youths are knowledgeable about HIV/AIDS and its modes of transmission yet they do not perceive themselves as at risk of contracting the disease. Following the theory of reasoned action, this study assumes that despite the level of knowledge, youths still have mixed beliefs as to how at-risk and vulnerable they are, and these beliefs influence their attitudes towards PLWHA. Therefore this study will find out if youths knowledge about their risk and vulnerability influence positive behaviour and attitudes towards PLWHA even after the introduction of HIV/AIDS education in schools. To achieve this, the study will investigate the

influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

1.3.Purpose of the study

The purpose of the study was to investigate the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19

1.4. Objective of the Study

- i. To determine the influence of the source of sex education on behaviour towards persons living with HIV/AIDS among teenagers between the ages of 15-19
- ii. To determine the influence of the source of sex education on beliefs towards persons living with HIV/AIDS among teenagers between the ages of 15-19
- iii. To determine the effect of source of sex education on feelings towards persons living with HIV/AIDS among teenagers between the ages of 15-19

1.5. Research Questions

- i. How does source of sex education influence behaviour towards persons living with HIV/AIDS among teenagers between the ages of 15-19?
- ii. How does source of sex of sex education on belief towards persons living with HIV/AIDS among teenagers between the ages of 15-19?
- iii. How does source of sex of sex education on feelings towards persons living with HIV/AIDS among teenagers between the ages of 15-19?

1.6. Justification of the Study

Studies done internationally on the source of sex education on the attitudes towards HIV/AIDS (Avert (2014), Fishbein (2013), and Benjamin (2001) have established that the source of sex education has an overall effect on reducing HIV infections. Despite these studies, no local research in Kenya has been conducted on sex education on the attitudes towards HIV/AIDS thus creating a knowledge gap. Presence of this knowledge gap would mean the youths may continue to suffer due to the HIV/AIDS epidemic. The effect of source of sex education on the attitudes towards HIV/AIDS cannot be realized if no research is carried out locally to fill this gap. It is for this reason

that the current study is being conducted to address this knowledge. This case study contributed immensely to community psychology. Major impact on personality development as well as behaviour and behaviour will be felt through this study.

1.7. Limitations of the Study

The measure developed addresses only HIV/AIDS, not other essential components that may determine the comprehensiveness of a sex education program, such as integration of youth and community, use of participatory teaching methods, safety of the learning environment, and links to HIV testing services and other initiatives that address adolescent sexual and reproductive health issues. Moreover, the measure does not assess the depth or manner in which a topic is addressed. For example, the measure is to assess whether a school teaches about HIV, but will not capture the accuracy of the information, the value judgments conveyed or the time spent teaching about HIV.

1.8. Significance of the Study

This study would be a source of knowledge in the academic study of psychology specifically in application of theories such as Theory of Reasoned Action and Social Learning Theory. Fishbein & Ajzen (1975) developed the Theory of Reasoned Action which states that the best predictor of a person's behavior is their intention to perform or not perform that behavior. The theory postulates that attitudes and norms create behavioral intentions, which in turn cause behavioral outcomes. Attitude is determined by the individual's beliefs about outcomes or attributes of performing the behavior (behavioral beliefs), weighted by evaluations of those outcomes or attributes. The theory of reasoned action may offer a model for understanding reporting behavior in adolescents and young adults in relation to HIV/AIDS.

The study further may contribute to Social Learning Theory. This theory is used in this study to explain how students in a school with no HIV/AIDS education get information about HIV/AIDS and how it impacts their behaviour. In this case it assumes that in the application of social learning theory through peer education extra-curricular programmes, media-television and radio, and other unsystematic means, the students are encouraged to observe and imitate the behaviour of their peer educators and others, see positive behaviour modelled and practised, increase their own capability and confidence and implement new skills with support from the environme

The acquired data would be valuable to governmental and non-governmental organizations, and national and international bodies interested in sex education in our schools which has been hindered by the religious community as well as our legislative houses. Secondly, the study would be of benefit to the academicians in that it will establish a foundation for further research concerning the effect of sex education on the attitudes towards HIV/AIDS among Christian teenagers, especially in Kenya where a multiplicity of cultures exists.

1.9. Scope of the Study

The study focused on sex education and how it influences behaviour, beliefs, and feelings towards persons living with HIV/AIDS. The respondents were youths aged between 15-19 years in Dagoretti North Constituency who were sampled and supplied with questionnaires with the aim of getting their views regarding the subject matter of the study.

1.10. Hypotheses of the Study

The study was guided by the following hypothesis:

- H₁. Source of sex education does not influence behaviour towards persons living with HIV/AIDS
- H₂. Source of sex education does not influence belief towards persons living with HIV/AIDS
- H₃. Source of sex education does not influence feelings towards persons living with HIV/AIDS

1.11. Assumptions of the Study

The assumption of this study is that the respondents are not taught nor examined on HIV/AIDS-related issues. The study also made an assumption that the respondent's truthfully and correctly answer the research questions that are set out in the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

Chapter two provides a literature review of the study. It accounts for the previous research and what has been found out in the area of study. This chapter mainly focuses on the influence of the source of sex education on attitudes towards persons living with HIV/AIDS. In addition, the chapter presents the theoretical framework, conceptual framework, and summary.

2.2. Sex Education

Dike (2006) conducted a study on a southeastern Nigerian population to investigate whether the people's level of education and what they know about malaria-affected how they sought treatment and prevention for the disease. Pre-tested questionnaires were used to collect data from randomly selected householders and analyzed using logistic regression. Higher levels of education were associated with improved knowledge and practice about the appropriate strategies for the prevention and treatment of malaria. The results thus indicate that education can have a positive impact on perceptions towards Malaria prevention.

Another study by Lopez, Rechner, & Olson-Buchanan, (2005) found that education has an influence on perceptions of people towards ethical behaviour. The study was designed to increase understanding of the forces that shape ethical perceptions by considering the effects of business school education as well as a number of other individual-level factors (such as intra-national culture, area of specialization within a business, and gender) that may exert an influence on ethical perceptions. One of the most significant findings was that tolerance for unethical behaviour appeared to decrease with formal business education.

Peterman & Kennedy (2003) analyzed changes in the perceptions of a sample of secondary school students enrolled in the Young Achievement Australia (YAA) enterprise program using a pre-test post-test control group research design to examine the effect of participation in an enterprise education program on perceptions of the desirability and feasibility of starting a business. After completing the enterprise program, participants reported significantly higher perceptions of both

desirability and feasibility. The degree of change in perceptions was found to be related to the 'positiveness' of prior experience and for the 'positiveness' of the experience in the enterprise education program.

Another study by Kalinga (2011) investigated the effects of sex education on adolescents' sexual behaviour in secondary schools in Thika District, Kenya. The study used ex-post facto design to determine sources of sex education and its influence on secondary school adolescents' sexual behaviour. Data analysis was both qualitative and quantitative. The qualitative analysis considered the inferences that were made from the opinions of the respondents. This analysis was then systematically presented in narrative form and where possible tabular form. Quantitative data were analyzed using descriptive statistics including frequency counts and percentage. These data were further subjected to significance tests using a Chi-square test. The results indicated that knowledge of sex affected the sexual behaviour of the participants.

2.3. Behavior towards PLWHA

Behaviour is the range of actions and mannerisms made by individuals, organisms, systems, or artificial entities in conjunction with themselves or their environment, which includes the other systems or organisms around as well as the physical environment. It is the response of the system or organism to various stimuli or inputs, whether internal or external, conscious or subconscious, overt or covert, and voluntary or involuntary. In the context of this study, behaviour is the mannerisms adopted by teenagers between the ages of 15-19 towards people living with HIV. Perception refers to the organization, identification, and interpretation of sensory information in order to represent and understand the presented information, or the environment. Since education entails the acquisition of knowledge, skills, values, beliefs, and habits, many scientists believe there is a strong link between education and perception, and behaviour.

2.2.1 Gender

Gender is the range of characteristics pertaining to and differentiating between, masculinity and A study by Bain & Rice, (2006) investigated whether gender has an effect on student's attitude toward the use of technology. Data were collected from 59 sixth grade students to examine their attitudes toward and uses of technology by means of The Computer Survey (TCS), computer logs, interviews, classroom observations, field notes, and student work. One of the major findings of the

study was that gender differences in attitudes, perceptions, and uses of computers were not found to be significant.

Rose, Larkin, & Berger (1997) studied the coordination and gender influences on the perceived competence of children. Measures of perceived athletic and scholastic competence, social acceptance, physical appearance, behavioural conduct, and global self-worth were obtained using Harter's Self-Perception Profile for Children (SPPC). Girls and boys, ages 8 to 12, were categorized as poorly coordinated or well-coordinated using their scores on the McCarron Neuromuscular Development battery. Univariate analyses, using a 2×2 design (Coordination \times Gender), showed a main effect of coordination in all domains, with the poorly coordinated group having the lower mean scores. In the scholastic, behavioural, and global sphere, coordination by gender interactions was influenced by the high perceptions of the well-coordinated girls. The interactions demonstrated for scholastic and global domains also were influenced by the low perceptions of the girls with poor coordination. This indicates that perceptions are modified by gender.

The limitation of the studies conducted is that focused on gender aspect but did not explain the relationship it has with sex education and attitude and behavior towards people living with HIV/AIDS. This thus creates a knowledge gap which will be filled by the current study by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.2.2 Social-economic factors

Socioeconomic status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation. When analyzing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, whereas for an individual's SES only their own attributes are assessed. However, SES generally depicts an economic difference in society, which has been linked to a difference in perceptions about experiences. AlSaeid et al. (2016) investigated road users' attitudes and preferences towards

accidents and safety measures in Kuwait. Results showed that socio-economic, attitudes and work commitment factors, all contribute to the behaviour and attitudes of road users in Kuwait.

Arpey, Gaglioti, & Rosenbaum, (2017) obtained a similar link between social-economic factors and perceptions after completing a study on the effects of socioeconomic status on patient perceptions of health care. In-depth interviews with 80 enrollees in a state Medicaid program were analyzed to identify recurrent themes in their perceptions of care. Most subjects perceived that their SES affected their health care. With an objective to investigate the impact of socioeconomic status and subjective social class on health-related quality of life (HRQOL) vs. overall quality of life (QOL), Kim & Park (2015) analyzed differences between HRQOL and QOL in individuals of various socioeconomic strata (high, middle, or low household income and education levels) and subjective social classes (high, middle, or low) at baseline (2009). Both household income/subjective social class and education/subjective social class were found to have an impact on the degree of divergence between QOL and HRQOL. This demonstrates that social-economic factors have an effect on perceptions.

The studies focused on social economic factors and how they influence the behavior and attitudes on different context. This creates a knowledge gap as they did not relate to socioeconomic factors with behavior and attitudes towards persons living with HIV/AIDS. This gap will be filled by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.2.3 Religion

An exploratory study in Tanzania by Zou (2009) probed associations between religious beliefs and HIV stigma, disclosure, and attitudes toward antiretroviral (ARV) treatment. A self-administered survey was distributed to a convenience sample of parishioners (n = 438) attending Catholic, Lutheran, and Pentecostal churches in both urban and rural areas. The survey included questions about religious beliefs, opinions about HIV, and knowledge and attitudes about ARVs. Multivariate logistic regression analysis was performed to assess how religion was associated with perceptions about HIV, HIV treatment, and people living with HIV/AIDS. Results indicated that

shame-related HIV stigma was strongly associated with religious beliefs such as the belief that HIV is a punishment from God.

Elbarazi et al., (2017) investigated how religion may affect the perception of health status among adults in the United Arab Emirates. Participants were recruited from shopping malls and other public places in the cities of Al Ain and Abu Dhabi. The researchers used qualitative analysis of short-structured interviews with adult Emiratis carried out by a market research agency. Eighty-one per cent of participants said that their perception of health states was influenced by their spiritual or religious beliefs.

Amoako-Agyeman (2012) investigated the relationships between adolescent religiosity and attitudes to HIV/AIDS based on two major techniques of analysis, factor and regression analysis towards informing preventive school education strategies. Using cross-sectional data of 448 adolescents in junior high school, the study incorporated survey in a self-administered questionnaire and sought to identify underlying factors that affect pupils' responses, delineate the pattern of relationships between variables and select models which best explain and predict relationships among variables. A seven-factor solution described the 'attitude' construct including abstinence and protection, and six for 'religiosity'. The results showed relatively high levels of religiosity and a preference for private religiosity as opposed to organizational religiosity. The regression analysis produced significant relationships between factors of attitudes to HIV/AIDS and of religiosity.

The three studies conducted did not have an elaborate methodology and population to effectively carry out the study. In addition the studies did not have a clear elaboration on how religion influences attitude towards persons living with HIV/AIDS. This gap will be filled by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.2.4 Ethnicity

An ethnic group or ethnicity is a category of people who identify with each other based on similarities such as common ancestry, language, history, society, culture or nation. Ethnicity is

usually an inherited status based on the society in which one lives. Membership of an ethnic group tends to be defined by a shared cultural heritage, ancestry, origin myth, history, homeland, language or dialect, symbolic systems such as religion, mythology and ritual, cuisine, dressing style, art or physical appearance. Scholars associate religion to perceptions based on similar characteristics shared by people of specific ethnic groups. Petkova (2006) shares an approach to social constructivism, and maintains that diversity should be examined not ‘par excellence’, as an entity in itself, but as reflected in people’s minds and expressed in their attitudes and perceptions. The scholar maintains that cultural diversity can also be translated into a social-psychological distance.

Kim & Gelfand’s (2003) study adapted an information processing perspective to incorporate the construct of ethnic identity (Phinney, 1990) into research on perceptions of one method of organizational recruitment, the use of recruitment brochures. Based on theory in developmental and cross-cultural psychology, the researchers posited ethnic identity moderates the impact of recruitment brochures on recruitment outcomes. Quantitative and qualitative data provided moderate support for this proposition. Regardless of race, individuals with higher levels of ethnic identity made more positive socio-emotional inferences about the nature of work-life in an organization and had greater job pursuit intentions when recruited with a brochure that contained a diversity initiative than when recruited with a brochure without a diversity initiative.

Timperio, Tan, Fratocchi, & Pace (2016) investigated Singaporean millennials’ attitudes toward luxury brands. The research focussed on the financial, functional, individual, and social dimensions of luxury value perception and whether ethnicity influences these dimensions. The research measured luxury value perception among millennials of the three main ethnic groups in Singapore (Chinese, Indians, and Malays) via more than 200 questionnaires. Data were analyzed through Kruskal-Wallis non-parametric ANOVA and cluster analysis. Luxury value perception did not vary across ethnicity, with the exception of the financial value dimension. Four market segments of young luxury consumers in Singapore are identified and profiled. These segments did not differ in terms of ethnicity.

The researches done were inconsistent about the relationship between ethnicity and perception but this largely depends on the context of the research. Still, it is important to account for perception as a confounding variable, especially in the current context of education and HIV. This creates a knowledge gap which will be filled by the current study by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.3.5 Prior exposure

People who have observed or shared experiences with family members, friends or third parties with HIV may portray unique behaviours towards PLWHA. Kuete et al. (2016) carried out research with the aim of establishing the differences in knowledge, attitude and behaviour towards HIV/AIDS and STIs between active foreign and Chinese medical students. The study utilized a cross-sectional design in which a sample of 434 students was selected through random sampling and data was collected using a structured questionnaire. The findings showed that both populations knew more about HIV/AIDS regardless of the level of education although they had misconceptions on causes the disease. 45.49% of Chinese and 35.67% of foreigners avoided condom use after HIV testing while 16.97% and 22.93 % agreed to have unprotected sex after mutual agreement. A group of Chinese students (28.88%) opted to avoid infected people compared to 7.64% of foreigners who did the same. This showed that the majority had a positive attitude to people with HIV/AIDS.

Famoroti, Fernandes and Chima (2013) carried out a study with the aim of investigating the impact of knowledge of HIV/AIDS by healthcare workers on the treatment of patients, together with the comfort level and attitude of health care workers during their care for PLWHA in Kwazulu Natal Province, South Africa. The study used a descriptive cross-sectional design in which a self-administered structured questionnaire was used in collecting data among the health care workers. The findings indicated that most significant relations between levels of education and knowledge, type of occupation and knowledge and gender of the respondents and knowledge. The study also found that HIV testing was sometimes done without the consent of the patients before surgeries and gossip over HIV statuses of patients which compromised their confidentiality. Most of the health care workers showed interest in reporting incidents of stigma and discrimination to

concerned authorities for proper monitoring and control. The population of the study was that of health care workers and may be different if it was caregivers like siblings and parents.

Nubed and Akoachere (2016) assessed the knowledge, attitudes and practices (KAPs) regarding HIV/AIDS among senior secondary school students in Fako Division of Cameroon. The study utilized a cross-sectional design, and population of 464 students sampled using quota random sampling and data collected using a questionnaire. The findings indicated adequate knowledge on HIV/AIDS where most of the students reported having obtained the knowledge from school especially on transmission and prevention. However, some lacked knowledge of the modes of transmission of the disease where 60% practised safer sex compared to 40 % who did not. Half of the respondents reported negative views on those infected with the disease, although it differed according to the level of knowledge. Those with medium and high levels of knowledge had positive attitudes towards persons infected with HIV compared to those who did not. There was a negative relationship between knowledge and safer sex, although it was not statistically significant. This study, however, was carried in a Cameroonian context which may be different from that of Kenya.

The studies conducted were informative although they utilized a cross-sectional design compared to the current study's descriptive design; furthermore, it focused on a population of post-graduate students compared to the current study which focuses on youth aged between 15-19 years of age, majority of whom are high school students. This creates a knowledge gap which needs to be filled by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.4 Source of sex education and belief towards PLWHA

Bleakley, Hennessy, Fishbein, & Jordan, (2009) conducted a study to examine how sources of sexual information are associated with adolescents' behavioural, normative, and control beliefs about having sexual intercourse using the Integrative Model of Behavior Change. They used Survey data from a quota sample of 459 youth. The most frequently reported sources were friends, teachers, mothers, and the media. Regression analyses indicated that learning about sex from parents, grandparents, and religious leaders were associated with beliefs likely to delay sex;

friends, cousins, and media were associated with beliefs that increase the likelihood of having sexual intercourse. Different sexual information sources were associated with different underlying beliefs.

Bluthenthal et al. (2012), explored congregationally and community norms and beliefs regarding HIV, sexuality, and drug use through a qualitative case study of 14 diverse religious congregations in Los Angeles County, California between December 2006 and May 2008. Data collected included semi-structured interviews with 57 clergy and lay leaders across the congregations, structured observations of congregational activities, review of archival documents, and a questionnaire on congregational characteristics. Across and within congregations, the researchers found a wide range of beliefs towards HIV, people with HIV, and populations at risk for HIV, from highly judgmental and exclusionary, to “loving the sinner, not the sin,” to accepting and affirming. The beliefs, attitudes and norms about HIV, homosexuality, and substance abuse appeared to be related to the type and intensity of congregational HIV-related activities. However, even among the higher activity congregations, the researchers found a range of perceptions, including ones that were stigmatizing. Results from the study suggest that affirming beliefs, norms and attitudes are not a prerequisite for a congregation to initiate HIV activities, a finding relevant for HIV service providers and researchers seeking to engage congregations on this issue.

2.4.1 Gender

Researchers, policymakers, and programmers have long recognized that gender plays a role in vulnerability to HIV/AIDS and its impacts in every region in the world. There is however minimal research regarding how gender affects the beliefs of people regarding people living with HIV. Gender widely refers to socially defined and learned male and female behaviours that shape the opportunities that one is offered in life, the roles one may play and the kinds of relationships that one has. It is distinct from sex, which is a biologically determined and fixed set of characteristics for men and women. It is also distinct from though closely linked to sexuality, which is the social construction of a biological drive that is defined by how, why, and with whom one has sex (Rao Gupta, 2000). Existing literature on the topic reveals that a relationship exists between gender and individual’s beliefs about PLWHA.

Mbonu, Van den Borne & De Vries (2010), examined gender-related beliefs and reactions of society, including health care professionals (HCPs), with regard to PLWHA, using Connell's theoretical framework of gender and power (1987). With Connell's structural theory of gender and power (financial inequality, authority and structure of social norms), the researchers described gender differences in the stigmatization of PLWHA. The study involved in-depth semi-structured interviews, lasting 60 to 90 minutes, with 100 persons (40 members of the general public, 40 HCPs and 20 PLWHA) in Port Harcourt, Nigeria. The interviews were tape-recorded and transcribed verbatim. The Nvivo 7 computer package was used to analyze the data.

Findings from the study revealed that there are similarities and differences between the general public and HCPs towards PLWHA in gender-related beliefs and reactions. For instance, although an association with promiscuity and power differences were commonly acknowledged in the different groups, there are differences in how these reactions are shown; such as HCPs asking the female PLWHA to inform their partners to ensure payment of hospital bills. Women with HIV/AIDS, in particular, are therefore in a disadvantaged position with regard to the care they receive. The researchers concluded that despite the fact that men and women with HIV/AIDS suffer the same illness, clear disparities are apparent in the negative reaction women and men living with HIV/AIDS experience in society. Findings from the study show that women's generally low status in society contributes to the extreme negative reactions to which female PLWHA are subject.

The studies have had focused more on women and ignored the male gender. In addition the studies have not had a clear methodology which would have assisted in executing the study objectives. In addition the studies have not discussed the aspect of source of sex education and attitudes towards PLWHA. This study will fill the gap by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.4.2 Social-economic factor

The factors underlying socioeconomic status differences in leisure time, physical activity, dietary choices and general lifestyles are poorly understood. Similarly, the relationship between socioeconomic factors and beliefs as well as attitudes towards PLWHA is poorly understood by

the general public. Many studies have attempted to clarify the role of socioeconomic factors in beliefs and attitudes towards PLWHA.

Wardle, J., & Steptoe, A. (2003), investigated attitudes and beliefs that might underlie behavioural choices, including health locus of control, future salience, subjective life expectancy, and health consciousness and HIV amongst other sensitive sexual health intricacies in a nationally representative sample. Data was collected as part of the monthly Omnibus survey of the Office of National Statistics in Britain. The researchers selected a stratified probability sample of 2728 households was selected by random sampling of addresses. One adult from each household was interviewed. Results from the study indicate that higher SES respondents were less likely to smoke and more likely to exercise and eat fruit and vegetables daily.

Lower SES was associated with less health consciousness (thinking about things to do to keep healthy), stronger beliefs in the influence of chance on health, less thinking about the future, and lower life expectancies. These attitudinal factors were in turn associated with unhealthy beliefs and behavioural choices, independently of age, sex, and self-rated health. The study concluded that socioeconomic differences in healthy lifestyles are associated with differences in attitudes to health that may themselves arise through variations in life opportunities and exposure to material hardship and ill health over the life course.

The limitation of the studies is that they focused on behavioural choices, including health locus of control, future salience, subjective life expectancy, and health consciousness and HIV amongst other sensitive sexual health intricacies in a nationally representative sample but they did not express the relationship that exist between socioeconomic factors and attitudes towards PLWHA. This creates a knowledge gap that will be filled by the current study by investigating the the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.4.3 Religion

Reyes-Estrada, Varas-Diaz, Parker, Padilla and Rodriguez Madera (2018) assessed the role of religion and HIV-related stigma among nurses working with PLWHA in Puerto Rico. The study utilized an exploratory design and a sample of 40 participants recruited for the study. Data were

collected using in-depth interviews on the nurses working with PLWHA. The findings indicated that religion was instrumental in determining the kind of service nurses accorded patients with HIV/AIDS. Three themes were identified which included personal religious experiences, religion as a rationale for stigma on HIV patients and religious practices during health care delivery. While some of the participants indicated that religion advocated non-judgment of others, some considered some contexts of acquiring HIV/AIDS as immoral and sinful. As a result, such practices impacted negatively on healthcare delivery.

Zou, Yamanaka, John, Watt, Ostermann and Thielman (2009) conducted a study to determine the influence of religious beliefs on HIV stigma, disclosure and treatment attitudes in Tanzania. The study utilized a survey design in which 438 parishioners from different churches were recruited using proportionate random sampling. The data was collected using a questionnaire which was administered to the participants. The findings indicated that a strong association between shame-related stigma and religion and that PWHA did not obey the word of God. Most respondents (84.2%) reported that they can report their status to the pastor and the congregation and 80.8% believed prayer can cure HIV/AIDS. Despite this belief, 93.7% said that they can begin ARV treatment if they were infected. There was a significant relationship between ARV treatment and the belief that prayer could cure HIV or other religious factors. In addition, refusing to take ARV treatment was associated with a lack of secondary education and knowledge of ARVs. This study sheds light on how religion affects treatment but it was conducted in a Tanzanian context. At the same time, it did not focus on adolescents but on the general population of churchgoers.

Another study was conducted by Gichuru, Kombo, Mumba, Sariola, Sanders and Van der Elst (2018) on how to engage religious leaders towards supporting the prevention of HIV prevention among minority groups of gay, bisexual men and other men having sex with men in Kenyan Coast. The study utilized a qualitative design where in-depth interviews were used to collect data. The findings showed that while religious leaders held homophobic attitudes towards such groups, an iterative transformation was achieved with continued discussions on differences as well as disagreements on scripture, mission, HIV and human sexuality.

The limitations of the studies is that they highlighted key issues about religion although it utilized qualitative data compared to the current study which intends to use quantitative data. In addition while the studies showed changes in views against GBMSM by religious leaders, it was a qualitative study in nature compared to the current study which is quantitative in nature. Furthermore, the study utilized a population of a minority group of gay, bisexual and men having sex with men. This creates a knowledge gap that will be filled by the current study by investigating the the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.4.4 Ethnicity

Taylor, Hembling and Bertrand (2015) conducted a study to establish how ethnicity influences HIV risk behaviour, testing together with knowledge among 16,205 women and 6822 men aged 15-59 years of age. The study utilized a cross-sectional research design and multi-stage probability sampling to select samples from 733 geographic clusters. Data were analyzed using multivariate logistic regression. The findings indicated that indigenous people were less likely to engage in risky behaviour and had low levels of HIV knowledge compared to other communities. Testing was also less likely for indigenous women than other women although it was even more for indigenous men. Furthermore, men had lower chances of early sexual debut and more than 10-lifetime sexual partners. This showed that ethnic populations may lack knowledge on HIV but be less poised to the risk of HIV. However, the study utilized a cross-sectional design compared to the current study which purposes to use a descriptive survey design.

Odimegwu, Alabi, Wet and Akinyemi (2018) carried out a study to determine the influence of ethnic heterogeneity and HIV/AIDS stigma and discrimination among Nigeria women. The study utilized a National Demographic Health Survey and data collected using a questionnaire. The results showed that determinants of HIV varied from an ethnic group to another. There were significant differences in stigma and discrimination in terms of secondary school education among the Hausa and Igbo. Wealth and status had a significant influence on HIV/AIDS stigma and discrimination, especially among the Hausa, Igbo and Yoruba. Knowledge of HIV/AIDS was correlated with lower odds of discriminating attitudes among the Hausa and Fulani. The study

shows that ethnic groups have different attitudes towards HIV/AIDS knowledge as influenced by their ethnicity.

Bukusi, Holzemer, Miller and Cohen (2011) assessed HIV/AIDS stigma and reluctance of testing among pregnant women in rural Kenya. The study utilized cross-sectional design and convenient sampling of women attending clinics in Kenya where a sample of 1525 women was recruited. The data were analyzed using multivariate logistic regression. The results indicated that anticipated stigma, break up of relationship and loss of friends were high. Those who anticipated stigma were more likely to refuse HIV testing. The study was carried out on different ethnic communities although it did not give the significant differences between the selected communities. This means that stigma in most ethnic communities barred women from seeking help.

The studies were informative although they used a population of women rather than adolescents as the current study. Further the studies were carried on the international context and utilized a women sample as opposed to the current study which will use a mixed sample of adolescents aged 15-19 years. This creates a knowledge gap which will be addressed by the current study by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.4.5 Prior exposure

Xu, Ming, Zhang, Wang, Jing and Cheng (2017) carried out a study to determine the influence of family support, discrimination and quality of life among ART-treated HIV-infected patients aged 18 and above in China. The study used an observational cohort design where a population of 332 participants was selected for the study. The data were analyzed using descriptive statistics and generalized estimating equations. The findings indicated that the overall quality of life of the participants was associated with having received family support, not feeling discriminated by family, discrimination from themselves, and never experiencing fear or anxiety of being abandoned by their family. The study indicated high levels of family support to patients undergoing ART in a Chinese context and is different from Kenya.

Ghouth (2016) conducted a study with the aim of describing the social stigma and work discrimination of PLWHA in Mukalla city in Hadramout, South-East Yemen. The study used a qualitative design and data from 20 participants collected using focus group discussions. The findings indicated that most of the participants experienced discrimination by being laid off from their jobs and denied medical care. This is despite medical facilities having received people with HIV and AIDS.

Fatoki (2016) assessed the causes of stigma and discrimination against PLWHA and the effects of stigma and discrimination on their lives. The study utilized qualitative design in which a population of 25 was selected. The data was collected using focus group discussions and in-depth interviews. The data were analyzed thematically and presented narratively. The findings indicated two major themes. In the first place, broken relationships and non-disclosure indicated consequences of stigma along with discrimination. Poor information contributed strongly to stigma and discrimination.

While the studies indicated that most PLWHA are discriminated and experience stigma, it used a qualitative design and their findings may be different from the current study which will utilize a descriptive survey design. This studies gives useful information on how stigma impacts PLWHA, however no clear elaboration was made creating a knowledge gap. This gap will be filled by the current study investigation the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.5. Sex education and feelings towards PLWHA

Feelings are used to describe the physical sensation of touch through either experience or perception. In psychology, the word is usually reserved for the conscious subjective experience of emotion. The link between education and feelings is complex with each variable affecting the other in various ways. Lesko (2010) carried out a study on the effect of knowledge on feelings. The study drew on interdisciplinary scholarship on effect and knowledge to ask: toward what feelings do abstinence-only and comprehensive sexuality education curricula direct us? A methodology that is attuned to double exposures was discussed, and one abstinence-only sexuality education curriculum and one comprehensive sexuality education curriculum were reviewed.

2.5.1 Gender

Chivate, Umate, Nimkar and De Sousa (2017) assessed gender differences in perceived stigma and hope among PLWHA in India as well as their correlations in the selected population of 68 HIV patients attending HAART clinic in a government hospital. The study used a cross-sectional survey design and semi-structured questionnaires used to collect the data. Data were analysed using a t-test and correlation analysis. Findings indicated that there were no significant differences between perceived stigma and an inverse relationship of different components of perceived stigma with hope. Women were found to feel significantly less hopeful towards HIV stigma.

Geary et al. (2014) studied gender differences in HIV disclosure, stigma and perceptions of health among 862 PLWHA in Ethiopia, Mozambique and Uganda. The study used a cross-sectional survey design as well as a structured questionnaire to collect data. The data were analyzed using multivariate analysis. The results showed that belonging to support groups, being a volunteer and disclosure of status to a partner significantly correlated with reduced levels of internalized stigma. There were no significant differences between internalized stigma for men or women. However, there were gender-specific effects on a person's well-being as well as changes in risky sexual behaviours. Despite the important findings, the study used a population of PLWHA and thus it is difficult to determine how genders in the current study population's education may affect their feelings on belief on PLWHA.

Teshome, Youjie, Habte and Kasm (2016) compared the correlation between comprehensive HIV/AIDS knowledge and attitude towards PLWHA and aged 15-49 years in Burundi, Ethiopia and Kenya. The study utilized a Demographic Health Survey where data was collected using a questionnaire from a sample of 34,348 participants. The findings showed a significant correlation between comprehensive HIV/AIDS knowledge and acceptance attitude towards persons living with the disease. Higher comprehensive knowledge was found among women in Burundi compared to Kenya and Ethiopia.

One of the study shows that PLWHA experienced stigma in the same but there was a need to focus more attention on women than men. The study was conducted in an Indian setting which limits the

generalization of findings to the Kenyan context. Furthermore, the studies have a wider age gap of respondents (15-49) compared to the current study which focuses more on teenagers aged 15-19 years of age. This creates a knowledge gap which will be filled by the current study by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.5.2 Social-economic factor

Li et al. (2017) examined the stigma attitude towards PLWHA among general individuals in Heilongjiang province of Northeast China as well as the factors associated with the stigma attitude, which included socio-demographic factors and knowledge of HIV/AIDS. The study used a cross-sectional survey design among 4050 respondents aged between 15-69 years. The sample was selected using stratified cluster sampling and standardized questionnaire used to collect data. Univariate together with multivariate analyses were used to analyze the collected data. The results showed that 49.6% and 37% of the respondents from rural and urban centres areas respectively showed stigma to PLWHA. Those with higher knowledge of transmission of HIV were likely to show less stigma compared to those without. Higher socioeconomic status and higher education level were associated with stigma towards persons with HIV.

A previous study was carried out by Nwanna (2011) to determine the correlation between socio-economic status and discrimination against PLWHA in Nigeria Lagos State. Multi-stage and systematic sampling techniques were used to select 40 enumeration areas and to select a sample. Collected data were analyzed using multivariate logistic regression analysis. The results indicated that non-infected respondents exhibited discrimination in various situations that involved PLWHA. A sizable number of PLWHA reported experiencing rejection, eviction, abandonment and isolation in their families along with communities. It was found that education, gender, place of residence and marital status significantly predicted discrimination, which was more prevalent in men than women. Discrimination was found to correlate with stigma because it stands as a tool for power, inequality, dominance oppression and even exclusion.

Amuri, Mitchell, Cockcroft and Anderson (2012) examined the associations between socio-economic status and stigma towards PLWHA. The study utilized a cross-sectional survey design

which included stratified random sampling of the participants. Data was collected using a structured questionnaire and analyzed using multivariate regression analysis. The findings indicated significant associations between socio-economic status and stigma. The people from poor households and education below primary schools were likely to perceive HIV as a punishment from God for sinning. This study indicates that socioeconomic status influences feelings towards PLWHA and that information is necessary on the same. However, the study context of Tanzania and population with older population differs with the current which focuses on adolescents.

The studies only compared populations of rural and urban participants compared to the current study which will select a population of adolescents aged between 15 and 19 years. In addition the studies were carried out in the international context and compared the experiences of PLWHA with that of the general population. This creates a knowledge which will be filled by the current study by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.5.3 Religion

Stigma related to HIV has been found to be sometimes embedded in some aspects of religion. In ascertaining this claim, Mihan, Kerr, and Maticka-Tyndale and ACBY Team (2013) carried out research to determine HIV-related stigma among African, Caribbean and black youth in Windsor, Ontario. The study cross-sectional survey was conducted among 510 youth aged between 16-25 years and living in Canada. Data were analyzed using multivariate logistic regression. The findings indicated that negative correlations between stigma levels and knowledge and HIV-testing. Ethno-religious identity and gender directly and indirectly influenced stigma where Afro-Muslim respondents showed higher levels of stigma, less knowledge and low probability of going for testing. Men were likely to have higher levels of stigma compared to women. Time in Canada indirectly influenced stigma by adding more knowledge to the participants.

Nkansa-Kyeremateng and Attua (2013) assessed the stigmatizing attitudes towards PLWHA and compared religious adherents from different places in Ghana. The study used a survey design in which structured questionnaires, as well as an in-depth interview, were used to collect data from

150 respondents sampled through multi-stage sampling. Data were analyzed using descriptive and thematic analyses. The findings indicated that religious adherents from the two study areas harboured negative attitudes towards PLWHA. Most of them feared physical contact, had HIV-related shame stigma in both places and in the traditional and mainstream religions. The study shows that uninformed religiosity may be subversive in the fight against HIV-stigma.

Ochako, Ulwodi, Njagi, Kimetu and Onyango (2011) explored the trends and determinants of comprehensive HIV and AIDS knowledge among urban young women in Kenya. The study utilized demographic health surveys from 1993-2009 in which linear regression was conducted in the analysis. The results showed a low knowledge of HIV and AIDS among urban young women in Kenya which progressed from 9% in 1993 to 54% in 2008/09. Among the predictors of comprehensive knowledge were: education, having been tested for HIV, knowledge of a person with HIV and having little or moderate to high-risk perception. Furthermore, women from other Christian denominations and religious groups were found to be 52% less likely to possess comprehensive knowledge compared to Catholic Christians. This study highlights the key point that HIV knowledge across different denominations may be low to high depending on their exposure and religious values.

The first study focused on migrants living in Canada and did not focus on locals to determine the stigma levels among the natives. The second study was conducted among religious groups in a Ghanaian context and may need to be replicated elsewhere for confirmation of findings. The third study, relied on surveys from previous studies and a current study may provide different results with the rapid changes in information technologies. All the studies have gaps that needs to be filled by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.5.4 Ethnicity

Studies have indicated differences in and knowledge of HIV-related stigma (Odimegwu et al., 2018). Mao, Li, Qiao, Zhou and Zhao (2017) carried out a study to determine the impact of ethnicity and multiple types of HIV-related stigma on adherence to antiretroviral therapy among PLWHA in Guangxi, China who had started taking ART. The study utilized a cross-sectional study

from the years 2012 and 2013. The data were analyzed using multiple binary logistic regressions. The findings showed that people who experienced enacted stigma reported higher adherence and that better adherence was correlated to age, female gender and having a job. Ethnicity moderated the effect of internalized stigma as well as adherence because improved adherence was correlated to lower internalized stigma among respondents in ethnic minorities other than Zhuang. This finding was explained to be a result of a synergy of stigma together with ethnic minority status hence the need to protect them further.

Brodish (2014) analyzed the association between ethnic diversity and HIV prevalence in sub-Saharan Africa in three countries namely Zambia, Kenya and Malawi. The study utilized a Demographic and Health Survey design and targeted men and women aged 15-59 years. The study used multilevel logistic regression in predicting the prevalence of HIV positive serostatus and prevalence within the Statistical Enumeration Area. The findings indicated that the cluster-level ethnic diversity measure significantly predicted HIV serostatus in Malawi and Zambia but not in Kenya. More results reflected the heterogeneity of the epidemic, where the male gender and marriage (Kenya) number of past partners in a year (Kenya and Malawi) and Muslim religion (Zambia) were linked with lesser odds of positive HIV serostatus. Use of condoms during the last intercourse, STD in the past year, number of partners in a lifetime, age (Malawi and Zambia), education (Zambia), urban residence (Zambia and Malawi) and employment (Malawi and Kenya) were associated with greater holds of positive serostatus.

The first study focused on ethnic minorities and their adherence to ART, it was conducted in a Chinese context and targeted minority groups rather than other larger communities whose finding may be different from the current study. In addition the second study focused on the context of three countries rather than Kenyan ethnicity. This creates a gap which the current study will fill by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.5.5 Prior exposure

Kingori, Nkansah, Haile, Darlington and Basta (2017) conducted a study to determine the factors associated with HIV-related stigma among college students in the Midwest University of the US. The study utilized a cross-sectional design where 200 students were selected using convenience sampling and data analyzed using multiple regressions. The findings showed that there was a significant negative correlation between composite knowledge of HIV and scores on stigma. Prior exposure was negatively correlated with the stigma against HIV Knowledge. This shows that persons who have been exposed to HIV a person either in family, school or another institution are likely to have lesser stigma compared to those who are not.

Another study was conducted by Bekalu, Eggermont, Ramanadhan and Viswanath (2014) to determine the effect of media use on HIV-related stigma in sub-Saharan Africa. The study used a cross-sectional data pooled between 2006 and 2011 from 11 sub-Saharan countries including Kenya. Data were analyzed using hierarchical regression analysis. HIV-related stigma tended to be higher among rural residents together with persons with low education levels. Media use was found to have a negative correlation with HIV-related stigma. This effect of media was influential for individuals living in urban centres compared to rural areas. As such, media provided a platform for exposure on the knowledge of HIV where some forms of stigma are demystified.

The study have limitation as the first study was conducted in the US and thus its findings may not apply to the Kenyan context. In addition the second study was conducted in many countries and it may be difficult to determine the state of affairs in different countries. In addition the studies did not have a clear contenxt with regard to current study which creates a knowledge gap. This study study aims to fill this gap by investigating the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

2.6. Empirical Evidence

This section presents empirical evidence on the topic of the effects of sources of education on attitudes towards PLWHA. A growing body of evidence already hints at the relationship between knowledge on attitudes towards various phenomena, including HIV/AIDS and other diseases. Knowledge has been particularly highlighted as an important factor in the reduction of HIV/AIDS

as well as in the response to stigmatizations and attitudes towards PLWHA. In a study on stigma and discrimination against people living with HIV by healthcare providers in Ethiopia, Feyissa, Abebe, Girma & Woldie, (2012) found that higher levels of stigma and discrimination against PLWHA were associated with lack of in-depth knowledge on HIV and orientation about policies against stigma and discrimination. A majority of studies show that knowledge can contribute to the cultivation of derivable attitudes while a small portion of research indicates that education or knowledge has little or no effect on attitudes (Auerbach, Kinsky, Brown, & Charles, 2015; Okpala, 2017; Sung, Huang, & Lin, 2015; Stenseth, Bråten, & Strømsø, 2016). Although this is not the primary aim of this research, it qualifies as one of the motives that drive this study. Even so, literature highlighting the effect of sources of knowledge on attitudes towards HIV is lacking.

With an aim of examining how media plays a role as a source of knowledge in changing attitudes toward PLWHA, Creel et al., (2011) evaluated the effects of the Malawi 'Radio Diaries' (RD) program, which features people with HIV telling stories about their everyday lives, on stigma and the additional effects of group discussion. Thirty villages with 10 participants each were randomized to listen to RD only, to the program followed by group discussion or to a control program. Post-intervention surveys assessed four stigma outcomes: fear of casual contact, shame, blame and judgment and willingness to disclose HIV status. Regression analyses indicated that fear of casual contact was reduced by the intervention. Shame was reduced by the radio program, but only for those reporting prior exposure to the radio program and for those who did not have a close friend or relative with HIV.

Bekalu, Eggermont, Ramanadhan, & Viswanath, (2014) investigated the moderating effects of exposure to mass media on HIV-related stigma. Hierarchical regression analysis indicated that HIV-related stigma tends to be higher among rural residents and individuals with low levels of education and HIV knowledge, as well as those who do not know people living with HIV. Media use was generally associated with low levels of HIV-related stigma and attenuated the gap between individuals with high and low educational levels. However, the effect of mass media was found to be stronger among urbanites rather than among rural residents, which could lead to a widening gap between the two groups in the endorsement of HIV-related stigma.

In another study by Gao et al. (2012), a school-based intervention was conducted in three middle schools and two high schools in Wuhan, China, which included 702 boys and 766 girls, with ages from 11 to 18 years old. The intervention was a one-class education program about HIV/AIDS for participants. HIV/AIDS knowledge, attitude, and high-risk behaviours were investigated using an anonymous self-administered questionnaire before and after the education intervention. Logistic regression analyses indicated that before the intervention the students' level of knowledge about HIV/AIDS was significantly associated with grade, economic status of the family, and attitudes toward participation in HIV/AIDS health information campaigns.

Tsai, & Venkataramani (2015) find no effects of additional years of education in the formal schooling system driven by a universal primary school intervention on negative attitudes toward persons with HIV. The authors pooled publicly available, population-based data from the 2011 Uganda Demographic and Health Survey and the 2011 Uganda AIDS Indicator Survey. The primary outcomes of interest were negative attitudes toward persons with HIV, elicited using four questions about anticipated stigma and social distance. The researchers finally concluded that additional education in formal schooling did not affect attitudes for young adults.

A review of qualitative 55 studies on stigma, HIV, and health by chambers (2015), indicated that HIV-related stigma within health contexts is a broad social phenomenon that manifests within multiple social spheres, including health care environments. Findings from the review indicate that future stigma research should consider the social structures and societal practices within and outside of health care environments, and that perpetuate and reinforce stigma and discrimination towards PLWHA. In response, this study aims to examine how various environmental factors and forms of education contribute to positive or negative attitudes towards PLWHA.

2.7. Theoretical Framework

2.7.1. Theory of Reasoned Action

The theory of reasoned action explains how and why attitude impacts behaviour, why people's beliefs change the way they act. The theory states that a person's behaviour is determined by their

attitude towards the outcome of that behaviour and by the opinions of the person's social environment. Main constructs of this theory are attitudes, subjective norms and intentions. Attitudes, in this case, are beliefs that a person accumulates over his lifetime, formed from direct experiences and outside information, and others inferred or self-generated.

If a person has a positive belief about the outcome of his behaviour then he is said to have a positive attitude and if a person has negative beliefs about the outcome of his behaviour, he is said to have a negative attitude. A person's subjective norms are his beliefs about what others will think of the behaviour. They are perceptions about how family and friends will perceive the outcome of the behaviour and the degree to which this influences whether the behaviour is carried out. Intentions are the probability that the individual will perform the behaviour. The intention is influenced by the attitude and the subjective norm and the behaviour is the transmission of the intention into action (Ajzen & Fishbein 1980).

Students are knowledgeable about HIV/AIDS and its modes of transmission yet they do not perceive themselves as at risk of contracting the disease. Following the theory of reasoned action, this study assumes that despite the level of knowledge, students still have mixed beliefs as to how at-risk and vulnerable they are, and these beliefs influence their attitudes towards PLWHA (Edlund, 2015). Therefore this study will find out if students' knowledge about their risk and vulnerability influence positive behaviour and attitudes towards PLWHA even after the introduction of HIV/AIDS education in schools.

2.7.2. Social Learning Theory

Bandura's social learning theory holds that people learn more from one another through observation, imitation and modelling. According to Bandura (1977), people observe others behaviours, attitudes and outcomes of those behaviours. Modelling effects produce learning mainly through their informative function. If people observe positive desired outcomes in the observed behaviour, they are more likely to model, imitate, and adopt the behaviour themselves.

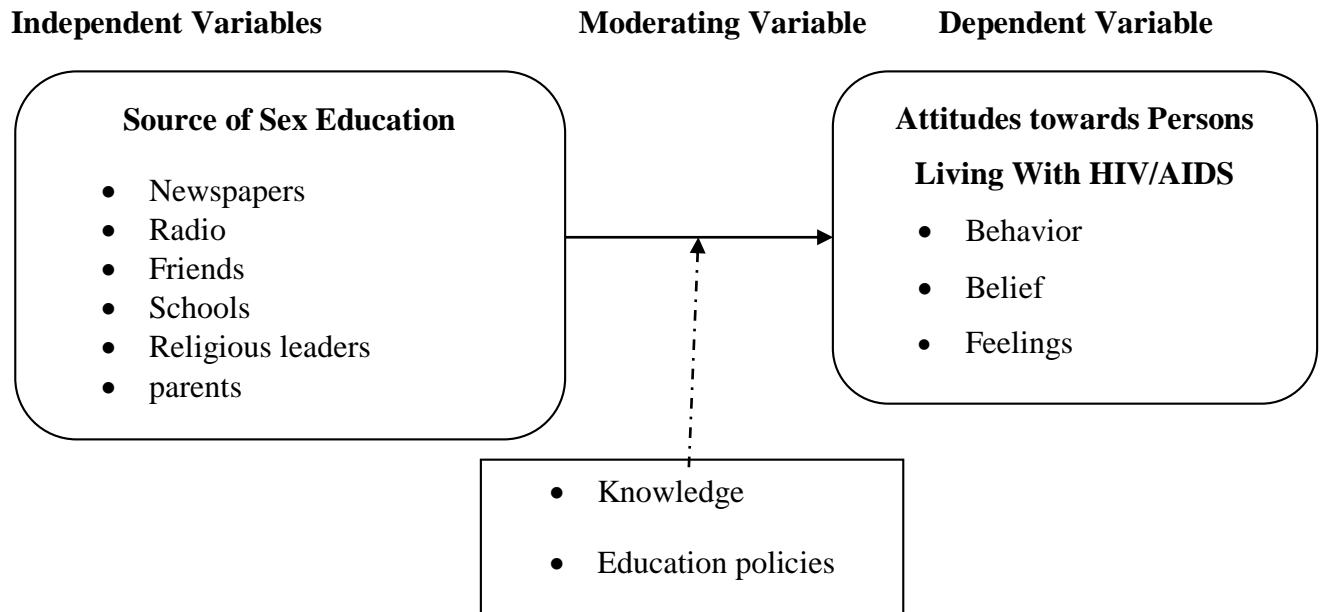
This theory is used in this study to explain how students in a school with no HIV/AIDS education get information about HIV/AIDS and how it impacts their behaviour. In this case it assumes that

in the application of social learning theory through peer education extra-curricular programmes, media-television and radio, and other unsystematic means, the students are encouraged to observe and imitate the behaviour of their peer educators and others, see positive behaviour modelled and practised, increase their own capability and confidence and implement new skills with support from the environment (Nicholson, 2012).

2.8. Conceptual framework

A conceptual framework is a diagrammatical research tool intended to assist the researcher to develop awareness and understanding of the situation under scrutiny and to communicate this (Roberts, 2011). The conceptual framework shows the relationship between the dependent variable and the independent variable. An independent variable is one that is presumed to affect or determine a dependent variable (Van der Waldt, 2008). It can be changed as required, and its values do not represent a problem requiring an explanation in the analysis but are taken simply as given. The conceptual framework for this study will be a researcher based framework depicted in figure 2.1. In the framework, the researcher intends to determine how the source of sex education influence attitudes towards persons living with HIV/AIDS.

Figure 2.1. Conceptual Framework



Source: author (2018)

2.9. Summary of the Literature Review

The chapter reviews existing literature on the influence of the source of sex education on attitudes towards persons living with HIV/AIDS. The concept of sex education has also been explained. Two theories, namely; theory of reasoned action and social learning theory, under which the study is based, have been discussed. The chapter also presents a conceptual framework reflecting the relationship between independent and dependent variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methods that the researcher utilized to achieve the research objectives of the study. The methods included the research design, the target population, the sampling design, the sample, data collection instruments, techniques and the data analysis techniques that will be used in the study.

3.2 Research Design

The study used descriptive research design. This method of research was preferred because the researcher is able to collect data to answer questions concerning the status of the subject of study. Descriptive research determines and reports the way things are done and also helps a researcher to describe a phenomenon in terms of attitude, values and characteristics (Mugenda and Mugenda, 1999). According to Orodho (2003), a descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. This method was appropriate for the study in that it helped in portraying the accuracy of peoples profile events and situations. A descriptive research design also allowed for in-depth analysis of variables and elements of the population to be studied and as well as the collection of large amounts of data in a highly economical way. It enabled the generation of factual information about the study. This is so because the descriptive design relied much on secondary data which helps in developing the case basing on facts, sustained by statistics and descriptive interpretations from archival materials and data.

3.3 Target Population

Population refers to all people or items (unit of analysis) with the characteristics that one wishes to study. The unit of analysis may be a person, group, organization, country, object, or any other entity that you wish to draw scientific inferences about (Bhattacharjee, 2012). The populations for this study was the youths aged between 15-19 years in Dagoretti North Constituency. This made a total target population of 3841 respondents.

3.4 Sample Size and sampling Procedure

This section describes the sample size, sampling technique and selection that was employed in the study.

3.4.1. Sample Size

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda and Mugenda, 1999). Sampling is the process of selecting the people who will participate in a study. This study adopted the stratified sampling technique. Stratified sampling is a probability sampling technique wherein the researcher divides the entire population into different subgroups or strata, then randomly selects the final subjects proportionally from the different strata. The reason for the choice of the sampling method was because it enables the researcher to representatively sample even the smallest and most inaccessible subgroups in the population. This allowed the researcher to sample the rare extremes of the given population. In addition, the study used the following formula proposed by Using Yamane (1973) to determine the sample size;

Using Yamane (1973) formulae

$$n = N / (1 + N * (e)^2)$$

Where

n = sample size

$$N = 3841 / (1 + 3841 * (0.07)^2)$$

$$n = 204$$

Therefore, the sample population size (n) was 204 respondents

3.4.2. Sampling Procedure

Sampling is the process of selecting the people who participate in a study. This process should be representative of the whole population. Sampling is hence the procedure, process or technique of choosing a sub-group from a population to participate in the study (Ogula, 2005). This study adopted the stratified sampling technique. From the possible 3841 target population, stratified random sampling was employed to select a total of 204 sample of the population.

3.5. Data Collection Methods

A questionnaire was used to collect primary data. The questionnaire comprised of questions, which sought answer questions related to the objectives of this study. The questions entailed closed-ended questions to enhance uniformity. The questionnaire was divided into two sections, the background information section and the research questions section. Furthermore, the research questions section was divided to sections according to the research objectives. In addition, the study collected secondary data which involved secondary documents analysis.

3.7. Data Collection Procedure

The procedure for data collection started once the researcher is given a letter of approval by the university to go to the field. Using the letter of approval, a permit to conduct the study was acquired. The researcher used the services of three research assistants in the data collection process. The research assistants were trained on how to administer the questionnaire. The drop and pick method was used where the research assistants delivered the questionnaire to the respondents and picked them when completed.

3.8. Validity and Reliability

3.8.1 Validity of the Instruments

Validity is the degree to which an instrument measures what it purports to measure (Mugenda and Mugenda, 2003). It is the accuracy and meaningfulness of inferences, which are based on the research results. Nachmias, and Nachmias, (1996) posits that there are three types of validity which include; construct, content validity and criterion-related validity. Content validity addresses how well the items developed to operationalize a construct provide an adequate and representative sample of all the items that might measure the construct of interest. Construct validity is a judgment based on the accumulation of evidence from numerous studies using a specific measuring instrument. Evaluation of construct validity requires examining the relationship of the measure being evaluated with variables known to be related or theoretically related to the construct measured by the instrument.

On the other hand, criterion validity provides evidence about how well scores on the new measure correlate with other measures of the same construct or very similar underlying constructs that theoretically should be related. It is crucial that these criterion measures are valid themselves. With

one type of criterion-related validity, predictive validity, the criterion measurement is obtained at some time after the administration of the test, and the ability of the test to accurately predict the criterion is evaluated. In order to ensure that the items on the research tools are valid, the researcher pre-tested the tools on 20 (10% of the sample population) respondents whose data did not form part of the actual study. Finally, the responses received from the pilot testing were attuned accordingly and any areas that needed adjustments were acted upon. The pretest made sure that questionnaires assessed what the research intend to be measure.

3.8.2 Reliability of the Instruments

According to Mugenda and Mugenda (2003), reliability is a measure of the degree to which a research instrument yields consistent result on data after repeated trials. A reliable instrument is one that produces consistent results when used more than once to collect data from the sample randomly drawn from the sample population (Mulusa, 1990). Test-retest reliability was carried out on the basis of administration of the questionnaire before starting data collection to ascertain the stability of the questionnaire. Information collected through the pilot study of 20 subjects in the study area, not included in the sample helped to identify some of the shortcomings likely to be experienced during the actual data collection exercise and the corrections done, helped to enhance reliability of the questionnaire. Responses obtained during the piloting were used to calculate the reliability coefficient from a correlation matrix. The reliability of the instrument was estimated using Cronbach's Alpha Coefficient which is a measure of internal consistency. A reliability of at least 0.70 at $\alpha=0.05$ (95 %) meant higher reliability and significance level of confidence is acceptable (Gable and Wolf, 2003)

3.9. Data Analysis

The data for the study was analyzed both qualitatively and quantitatively. The data collected was keyed in and analyzed with the aid of SPSS. The Quantitative data generated was subjected to the descriptive statistics feature in SPSS to generate mean, and standard deviation which were presented using tables, frequencies and percentages, while Qualitative data consisted of words and observations, not numbers. Pearson's correlation coefficient was used to show the strength of the relationship between influence of the source of sex education on behaviour towards persons living with HIV/AIDS, influence of the source of sex education on beliefs towards persons living with

HIV/AIDS, and effect of source of sex education on feelings towards persons living with HIV/AIDS to show cause and effect for first and second hypotheses. A regression analysis was used to assess the association between the variables and describe the relationship in percentages to show whether the patterns can be generalized for the third hypothesis. Regression shall was used to show how gender, social economic factors, religion, ethnicity, and prior exposure contribute to the attitudes towards persons living with HIV/AIDS.

3.10. Ethical Considerations

This study adhered to appropriate research procedures and all sources of information were acknowledged as far as possible. Before the extraction tool is administered, consent was sought from the supervisor. The researcher presented before a panel of scholars to indicate that the information (data) extracted was only used for the purpose of the study.

CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION

4.1.Introduction

This chapter presents the data that was found on the influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19. The research was conducted on a sample of 204 participants to which questionnaires were administered. The chapter introduces with analysis of participants' personal information, and then looks into the analysis of study objectives.

4.2.Questionnaire Return Rate

Out of the sampled population, 187 questionnaires were returned duly filled in making a response rate of 91.6%. The response rate was representative and was adequately used to answer the research questions.

Table 4.1. Response Rate

| Response | Frequency | Percentage |
|----------------------------|------------------|-------------------|
| Filled in questionnaires | 187 | 91.6 |
| Un returned questionnaires | 17 | 8.4 |
| Total Response Rate | 204 | 100 |

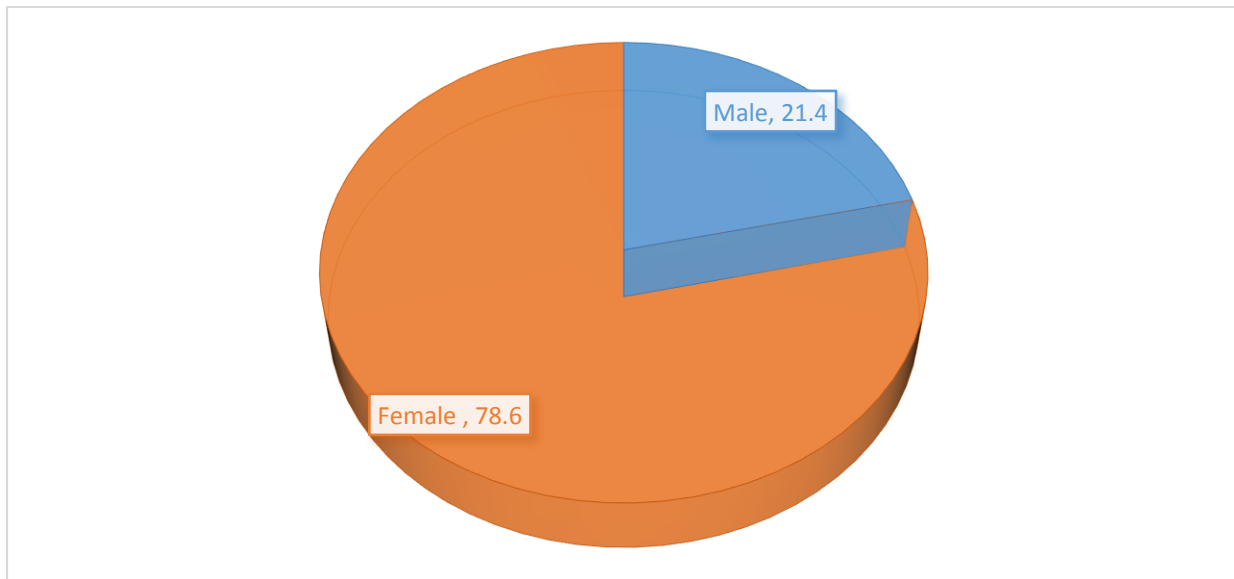
4.3. Demographic characteristics of Research Participants

The participants' personal information included: gender, family structure and religion. The findings are shown in subsequent sections:

4.3.1.Participants Gender

The participants were requested to indicate their gender in order to inform the researcher as to whether gender is a factor in determining the source of sex education on attitudes towards persons living with HIV/AIDS.

Figure 4.2. Participants Gender



A majority the participants were female (78.6%) while a minority were males (21.4%). This depicts that female were mostly involved in providing education on attitudes towards persons living with HIV/AIDS.

4.3.2. Family Structure

The participants were asked to indicate their family structure. This was important as it enabled to identify whether family structure affected providing education on attitudes towards persons living with HIV/AIDS.

Table 4.2. Family Structure

| Structure | Frequency | Percentage |
|------------------|------------------|-------------------|
| Nuclear family | 133 | 71.1 |
| Extended family | 23 | 12.3 |
| Single parent | 31 | 16.6 |
| Total | 187 | 100 |

From the findings majority (71.1%) were from a nuclear family, 16.6% were from single parent, while 12.3% were from an extended family. This depicts that majority of the respondents were from a nuclear family and thus could receive information on sex education from the father and the mother.

4.3.3. Religion

The participants were asked to indicate their religion. This was important as it enabled to identify whether religion had a contribution on source of education on attitudes towards persons living with HIV/AIDS.

Table 4.3. Religion

| Structure | Frequency | Percentage |
|------------------|------------------|-------------------|
| Christian | 163 | 87.2 |
| Muslim | 16 | 8.6 |
| Hindu | 3 | 1.6 |
| Others | 5 | 2.7 |
| Total | 187 | 100 |

From the findings majority (87.2%) were Christians, 8.6% were muslim, 2.7% were from other religions, while 1.6% were hindu. This depicts that majority of the respondents were Christians and thus they were in good position to obtain information on sex education as their religion supports discussion on sexuality.

4.4. Source of Sex Education on Behaviour Towards PLWHA

This section presents findings on source of sex education on behaviour towards PLWHA. The findings are as shown in the subsequent section:

4.4.1. Extent of on the Importance of Source of Sex Education

The respondents were requested to indicate the extent of importance of various aspects in provision of sex education. The findings are as shown in the table 4.4

Table 4.4. Extent of on the Importance of Source of Sex Education

| Statements | Mean | Std. Dev |
|-------------------|-------------|-----------------|
| Television | 3.05 | 1.44 |
| Parents | 3.17 | 1.64 |

| | | |
|--------------|------|------|
| Magazines | 2.49 | 1.30 |
| Internet | 3.91 | 1.44 |
| Health Clubs | 3.16 | 1.59 |

From the findings the respondents indicated to a great extent that internet is of great importance in provision of sex education (mean=3.91), followed by parents (mean=3.17), Health Clubs (mean=3.16), television (mean=3.05), and magazines (mean=2.49). This depicts that internet is of great importance in provision of sex education.

4.4.2. Perception of HIV/AIDS among the Youth

The respondents were requested to indicate the level of agreement on perception of HIV/AIDS among the youth. The findings are as shown in table 4.5

Table 4.5. Perception of HIV/AIDS among the Youth

| Statements | Mean | Std. Dev |
|--|------|----------|
| HIV is a contagious disease | 2.48 | 1.37 |
| People having casual contact with people living with HIV may get infected | 1.45 | 0.91 |
| Sources of HIV/AIDS infection include unprotected sex | 3.62 | 0.78 |
| Sexual intercourse without a condom may lead to HIV infection | 3.17 | 1.07 |
| Having oral sex with an HIV infected person may lead to contacting the virus | 2.88 | 1.17 |

From the findings the respondents agreed that sources of HIV/AIDS infection include unprotected sex (mean=3.62), followed by sexual intercourse without a condom may lead to HIV infection (mean=3.17), having oral sex with an HIV infected person may lead to contacting the virus

(mean=2.88), HIV is a contagious disease (mean=2.48), and people having casual contact with people living with HIV may get infected (mean=1.45). This depicts that sources of HIV/AIDS infection include unprotected sex.

4.5. Source of Sex Education and Belief Towards PLWHA

This section presents findings on source of sex education on belief towards PLWHA. The findings are as shown in the subsequent section:

4.5.1. Extent of Agreement on how Source of Sex Education Shapes the Beliefs with regard to HIV/AIDSs

The respondents were requested to indicate the extent of agreement on how source of sex education shapes the beliefs with regard to HIV/AIDSs. The findings are shown in table 4.6

Table 4.6. Extent of Agreement on how Source of Sex Education Shapes the Beliefs with regard to HIV/AIDSs

| Statements | Mean | Std. Dev |
|--|-------------|-----------------|
| HIV is transmitted through hugging an infected person | 1.19 | 0.71 |
| HIV can also be passed from infected pregnant woman to her unborn baby during pregnancy, birth and breast milk | 3.57 | 0.74 |
| HIV is transmitted by simple casual contact such as kissing | 2.11 | 1.04 |
| Condoms will decrease the risk of HIV transmission | 2.40 | 1.12 |
| HIV is can be spread by sharing needles or syringes with someone who has the virus | 3.76 | 0.68 |

From the findings the respondents agreed that HIV can be spread by sharing needles or syringes with someone who has the virus (mean=3.76), followed HIV can also be passed from infected pregnant woman to her unborn baby during pregnancy, birth and breast milk (mean=3.57), condoms will decrease the risk of HIV transmission (mean=2.4), HIV is transmitted by simple

casual contact such as kissing (2.11), HIV is transmitted through hugging an infected person (mean=1.19). This depicts that HIV can be spread by sharing needles or syringes with someone who has the virus.

4.5.2. Extent of Agreement on Beliefs with regard to HIV/AIDs

The respondents were requested to indicate the extent of agreement on beliefs with regard to HIV/AIDs. The findings are shown in table 4.7

Table 4.7. Extent of Agreement on Beliefs with regard to HIV/AIDs

| Statements | Mean | Std. Dev |
|---|-------------|-----------------|
| Willing to live with people having HIV/AIDs in the same community may reduce bad belief towards people living with HIV/AIDs | 3.37 | 0.87 |
| Reluctant to live with people having HIV/AIDs in the same community may lead to stigmatization | 3.49 | 0.86 |
| Dislike having contact with HIV/AIDs people as it may lead to infection | 1.45 | 0.87 |
| Contact with people living with HIV as before may lead to infection | 1.54 | 0.92 |

From the findings the respondents agreed that reluctant to live with people having HIV/AIDs in the same community may lead to stigmatization (mean=3.49), followed by willing to live with people having HIV/AIDs in the same community may reduce bad belief towards people living with HIV/AIDs (mean=3.37), contact with people living with HIV as before may lead to infection (mean=1.54), and dislike having contact with HIV/AIDs people as it may lead to infection (mean=1.45). This depicts that reluctant to live with people having HIV/AIDs in the same community may lead to stigmatization.

4.6. Sex Education and Feelings Towards PLWHA

This section presents findings on source of sex education on feelings towards PLWHA. The findings are as shown in the subsequent section:

4.6.1. Extent of Agreement on feelings towards HIV/AIDS among the Youth

The respondents were requested to indicate the extent of agreement on feelings towards HIV/AIDS among the youth. The findings are shown in table 4.8

Table 4.8. Extent of Agreement on feelings towards HIV/AIDS among the Youth

| Statements | Mean | Std. Dev |
|--|------|----------|
| Feel empathetic towards people living with HIV and AIDS | 2.49 | 1.14 |
| Discriminate feelings against people living with HIV and AIDS | 1.80 | 1.18 |
| People living with HIV/AIDS should never be regarded as an outcast | 3.56 | 0.92 |
| People have negative feelings towards people living with HIV/AIDS | 2.77 | 1.05 |
| HIV vulnerability caused by religious beliefs and practices is the result of religious institutions' denunciation of HIV infection as sinful | 2.63 | 1.10 |
| Individuals suffering from HIV/AIDS and who are unemployed tend to be socially isolated and suffer more anxiety and depression | 3.35 | 0.97 |

From the findings the respondents agreed that people living with HIV/AIDS should never be regarded as an outcast (mean=3.56), followed by individuals suffering from HIV/AIDS and who are unemployed tend to be socially isolated and suffer more anxiety and depression (mean=3.35), people have negative feelings towards people living with HIV/AIDS (mean=2.77), HIV vulnerability caused by religious beliefs and practices is the result of religious institutions'

denunciation of HIV infection as sinful (mean=2.63), feel empathetic towards people living with HIV and AIDS (mean=2.49), and discriminate feelings against people living with HIV and AIDS (mean=1.8). This depicts that people living with HIV/AIDS should never be regarded as an outcast.

4.6.2. Extent of Agreement on Prevention of HIV/AIDS

The respondents were requested to indicate the extent of agreement on prevention of HIV/AIDS. The findings are shown in table 4.9

Table 4.9. Extent of Agreement on Prevention of HIV/AIDS

| HIV could be avoided by | Mean | Std. Dev |
|--|-------------|-----------------|
| Abstaining from sex | 4.05 | 1.45 |
| Using condoms | 2.91 | 1.28 |
| Avoiding sex with prostitutes (Commercial sex workers) | 4.00 | 1.41 |
| Avoiding sex with a person with many partners | 4.06 | 1.38 |
| Seeking protection from traditional healers | 1.60 | 1.16 |
| Avoiding blood transfusions (everywhere) | 3.35 | 1.56 |
| Avoiding sex with persons of same-sex | 2.91 | 1.57 |
| Avoiding doctors who help HIV positive | 1.63 | 1.29 |

From the findings the respondents agreed that avoiding sex with a person with many partners help in prevention of HIV/AIDS (mean=4.06), followed by abstaining from sex (mean4.05), avoiding sex with prostitutes (Commercial sex workers) (mean=4), avoiding blood transfusions (everywhere) (mean=3.35), using condoms (mean=2.91), avoiding sex with persons of same-sex (mean=2.91), avoiding doctors who help HIV positive (mean=1.63), and seeking protection from traditional healers (mean=1.6). This depicts that avoiding sex with a person with many partners will help in prevention of HIV/AIDS.

4.6.3. Respondent Opinion on people with HIV/AIDS

The respondents were requested to indicate their opinion with regard to people living with HIV/AIDS. The findings are shown in table 4.10

Table 4.10. Respondent Opinion on people with HIV/AIDS

| Statements | Yes | No |
|---|------|------|
| People with HIV should be kept out of school | 96.3 | 3.7 |
| I would end my friendship if my friend had AIDS | 93.0 | 7.0 |
| I am willing to do volunteer work with AIDS patients | 12.8 | 87.2 |
| I would buy vegetable from an HIV positive shop keeper | 15.5 | 84.5 |
| If a family member contracts HIV they should move out of home | 93.0 | 7.0 |
| If a family member is HIV positive it should be kept a secret | 51.3 | 48.7 |
| People with HIV should stay indoors or in a hospital | 94.7 | 5.3 |

From the findings majority of the respondents were of the opinion that people with HIV should be kept out of school (96.3%), followed by people with HIV should stay indoors or in a hospital (94.7%), and if a family member contracts HIV they should move out of home and I would end my friendship if my friend had AIDS respectively (93.0%). In addition majority had a differing opinion that i am willing to do volunteer work with AIDS patients (87.2%), and that I would buy vegetable from an HIV positive shop keeper (84.5%). This depicts that the respondents were of the opinion that people with HIV should be kept out of school.

4.7. Inferential Statistics

The researcher conducted a multiple regression analysis to test the relationship among independent variables on attitudes towards persons living with HIV/AIDS. The researcher applied the statistical package for social sciences (SPSS V 24.0) to code, enter and compute the measurements of the multiple regressions for the study. Coefficient of determination explains how much changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (attitudes towards persons living with HIV/AIDS) that is explained by all the five confounding variables (gender, social-economic factor, religion, ethnicity and prior exposure).

4.7.1. Model Summary

The table below provides the model summary of the relationship between the predictor variables and attitudes towards persons living with HIV/AIDS. The findings are as shown below:

Table 4.11. Model Summary

| Model | R | R Square | Adjusted Square | RStd. Error of the Estimate | F | P-value |
|-------|-------------------|----------|-----------------|-----------------------------|--------|---------|
| 1 | .930 ^a | .864 | .858 | .239 | 47.341 | .000 |

a. Predictors: (Constant), gender, social-economic factor, religion, ethnicity and prior exposure

b. Dependent Variable: attitudes towards persons living with HIV/AIDS

From the analysis in the table above $R^2=0.864$, i.e. 86.4% variation in that attitudes towards persons living with HIV/AIDS is explained by predictors in the model. However 13.6% variation unexplained in attitudes towards persons living with HIV/AIDS is due to factors not in the regression model. From this test result the model is a good model and can be used for estimation purposes. From the findings shown in the table above there was a strong positive relationship between the study variables as shown by $R=0.930$, i.e. 93% this indicates that there is a significant relationship between the predictor variables and attitudes towards persons living with HIV/AIDS.

4.7.2. ANOVA Results

The table below provides the ANOVA results of the relationship between the predictor variables and attitudes towards persons living with HIV/AIDS. The findings are as shown below:

Table 4.12. ANOVA of the Regression

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|--------------|----------------|------------|-------------|--------|-------------------|
| 1 | Regression | 13.245 | 5 | 2.649 | 46.474 | .023 ^a |
| | Residual | 10.317 | 181 | .057 | | |
| | Total | 23.562 | 186 | | | |

a. Predictors: (Constant), gender, social-economic factor, religion, ethnicity and prior exposure

b. Dependent Variable: attitudes towards persons living with HIV/AIDS

The significance value is 0.023 which is less than 0.05 thus the model is statistically significance in predicting how the factors (gender, social-economic factor, religion, ethnicity and prior exposure) influence the attitudes towards persons living with HIV/AIDS. The F critical at 5% level of significance was 2.649. Since F calculated is greater than the F critical (value = 46.474), this shows that the overall model was significant.

4.7.3. Coefficient of Determination

The table below provides the coefficient of determination on the relationship between the predictor variables and attitudes towards persons living with HIV/AIDS. The findings are as shown below:

Table 4.13. Coefficient of Determination

| | Unstandardized | | Standardized | | |
|-------------------|----------------|------------|--------------|-------|-------|
| | Coefficients | | Coefficients | | |
| | B | Std. Error | Beta | T | Sig. |
| Model 1(Constant) | 0.181 | 0.416 | | 2.192 | 0.000 |
| Gender | 0.469 | 0.100 | 0.383 | 4.692 | 0.000 |
| Social-Economic | | | | | |
| Factor | 0.240 | 0.014 | 0.157 | 2.651 | 0.015 |
| Religion | | | | | |
| | 0.309 | 0.086 | 0.317 | 3.214 | 0.013 |
| Ethnicity | | | | | |
| | 0.334 | 0.021 | 0.321 | 3.098 | 0.002 |
| Prior Exposure | | | | | |
| | 0.453 | 0.123 | 0.214 | 0.215 | 0.002 |

a. Dependent Variable: Attitudes towards persons living with HIV/AIDS

Multiple regression analysis was conducted as to determine the attitudes towards persons living with HIV/AIDS and the five variables. As per the SPSS generated table below, regression equation

($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$) becomes:

($Y = 0.181 + 0.469X_1 + 0.240X_2 + 0.309X_3 + 0.334X_4 + 0.453X_5 + \epsilon$)

According to the regression equation established, taking all factors into account (gender, social-economic factor, religion, ethnicity and prior exposure) constant at zero, attitudes towards persons living with HIV/AIDS was 0.181. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in gender will lead to a 0.469 increase in attitudes towards persons living with HIV/AIDS; a unit increase in socio economic factor will lead to 0.240 increase in attitudes towards persons living with HIV/AIDS, a unit increase in religion will lead to a 0.309 increase in attitudes towards persons living with HIV/AIDS, a unit increase in ethnicity will lead to 0.334 increase in attitudes towards persons living with HIV/AIDS, and a unit increase in prior exposure will lead to a 0.453 increase in attitudes towards persons living with HIV/AIDS. This infers that gender contributes the most to the attitudes towards persons living with HIV/AIDS, followed by prior exposure. At 5% level of significance and 95% level of confidence, gender, social-economic factor, religion, ethnicity and prior exposure were all significant on attitudes towards persons living with HIV/AIDS.

4.8. Multiple Analysis of the Influence of source of sex education on behaviour, beliefs, and feelings towards persons living with HIV/AIDS

Correlational analysis using Pearson's Product Moment technique was done to determine the relationship between source of sex education and behaviour, beliefs, and feelings towards persons living with HIV/AIDS.

Table 4.14. Correlational Analysis of Source of Sex Education on Behaviour, Beliefs, and Feelings Towards Persons living with HIV/AIDS.

| | | Source of sex education | Behaviour | Beliefs | Feelings |
|-------------------------|---------------------|-------------------------|-----------|---------|----------|
| Source of sex education | Pearson Correlation | 1 | | | |
| | Sig. (2-tailed) | | | | |
| | N | 187 | | | |
| Behaviour | Pearson Correlation | .526 | 1 | | |
| | Sig. (2-tailed) | .000 | | | |
| | N | 187 | 187 | | |
| Beliefs | Pearson Correlation | .578 | .586 | 1 | |
| | Sig. (2-tailed) | .000 | .005 | | |
| | N | 187 | 187 | 187 | |
| Feelings | Pearson Correlation | .564 | .563 | .591 | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 187 | 187 | 187 | 187 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The results in Table 4.14 shows that there is a significant positive relationship between source of sex education and behaviour towards persons living with HIV/AIDS ($r = 0.526$, $p\text{-value} < 0.05$). This implies that there is a very strong association between source of sex education and behaviour towards persons living with HIV/AIDS which is significant. The findings also reveal that there is a significant positive relationship between source of sex education and beliefs towards persons living with HIV/AIDS ($r = .578^{**}$, $p\text{-value} < 0.05$), thus implying that source of sex education has a positive and significant relationship with the beliefs towards persons living with HIV/AIDS. On feelings towards people living with HIV/AIDS, the findings indicated a significant positive relationship between source of sex education and feelings towards persons living with HIV/AIDS

($r = .564^{**}$, $p\text{-value} < 0.01$) thus, depicting that source of sex education have a significant positive relationship to the feelings towards persons living with HIV/AIDS.

4.9. Conclusion

In conclusion, it is clear that knowledge, attitudes, and practices regarding HIV/AIDS are the cornerstones in the fight against the disease. Adequate knowledge about HIV/AIDS is a powerful means of promoting positive attitudes and engaging in safe practices. The belief that greater understanding leads to more positive attitudes informs many practical initiatives and, indeed, many prevention programs have focused on increasing knowledge on the transmission so as to overcome misconceptions that could prevent behavioural change towards safe practices and also reduce the stigma against people living with HIV/AIDS.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the summary of findings, discussions, conclusion and recommendations on influence of the source of sex education on attitudes towards persons living with HIV/AIDS: a case of teenagers between the ages of 15-19.

5.2 Internal and External Validity

The study was a survey that utilized questionnaires as the instrument for data collection. The proposal was piloted prior to fieldwork to demonstrate the validity and reliability of the instruments using 10 items. The average inter-item covariance was .0713498 and a scale reliability of .07982. The respondents were youths aged between 15-19 years whose literacy level was quite low hence the need for the researcher to help them complete the questionnaires. This posed the challenge of some respondents not being honest enough about their experiences and poor recalling of their experiences with people living with HIV/AIDS.

The sampling procedure of stratified sampling posed the challenge of organizing the respondents into groups and having them fill the questionnaires which was conducted for two weeks and there were no means to rule out a respondent who had already participated. These threatened the accuracy of data collected, however the findings of this study can be nonspecific among the youth populations only since the caregivers of the respondents were not involved and thus less of their traits featured in this study.

To determine the internal consistency of items generating that collected data on study variables Cronbach's alpha was used to measure internal consistency. The findings are summarized in table 4.15

Table 4.15. Summary of Reliability Test on Independent Variables

| Serial No. | Variable | No of Items used | Cronbach's alpha |
|------------|----------|------------------|------------------|
|------------|----------|------------------|------------------|

| | | | |
|---|------------------------------------|---|---------------|
| 1 | Behaviour Towards PLWHA | 2 | $\alpha=0.75$ |
| 2 | Belief Towards PLWHA | 2 | $\alpha=0.76$ |
| 3 | Feelings Towards PLWHA | 3 | $\alpha=0.81$ |

Based on the above Cronbach's alpha finding for the study, the tool has acceptable internal reliability (above $\alpha=0.7$) and therefore the tool yielded reliable data that gave valid conclusion. On validity the supervisor assessed the content of the document and ascertained that it was appropriate for the study and thus could yield appropriate results which could give a conclusion which is valid.

5.3. Summary of Findings

1. The study internet is of great importance in provision of sex education.
2. The study also found that sources of HIV/AIDS infection include unprotected sex
3. The study found that HIV can be spread by sharing needles or syringes with someone who has the virus.
4. The study also found that reluctant to live with people having HIV/AIDS in the same community may lead to stigmatization
5. The study found that people living with HIV/AIDS should never be regarded as an outcast.
6. The study also found that avoiding sex with a person with many partners will help in prevention of HIV/AIDS.
7. The study found that the respondents were of the opinion that people with HIV should be kept out of school.
8. The study found that at 5% level of significance and 95% level of confidence, gender, social-economic factor, religion, ethnicity and prior exposure were all significant on attitudes towards persons living with HIV/AIDS.

5.4. Discussion of Findings

5.4.1. Source of Sex Education on Behaviour Towards PLWHA

The study found that internet is of great importance in provision of sex education. The findings concur with a study by Bekalu, Eggermont, Ramanadhan and Viswanath (2014) who found that effect of media was influential for individuals living in urban centres compared to rural areas. As such, media provided a platform for exposure on the knowledge of HIV where some forms of stigma are demystified. The study also found that sources of HIV/AIDS infection include unprotected sex.

Kuete et al. (2016) showed that both populations knew more about HIV/AIDS regardless of the level of education although they had misconceptions on causes the disease. 45.49% of Chinese and 35.67% of foreigners avoided condom use after HIV testing while 16.97% and 22.93 % agreed to have unprotected sex after mutual agreement. A group of Chinese students (28.88%) opted to avoid infected people compared to 7.64% of foreigners who did the same. This showed that the majority had a positive attitude to people with HIV/AIDS.

Reasons for this lack of appropriate behaviour of HIV prevention and for the pandemic of the disease could be that there are differences in health care, infrastructure, sexual risk behavior, knowledge about the disease, poverty and political and economic stability around the world (Coovadia & Hadingham, 2005). Multilayered social, political and economic efforts are therefore needed to reduce the HIV risk and vulnerability, where different countries have different opportunities (Gupta et al., 2008). According to the author the misconceptions and lack of KAP of HIV prevention are a major problem, where increased knowledge and understanding of the disease is needed globally.

5.4.2. Source of Sex Education and Belief Towards PLWHA

The study found that HIV can be spread by sharing needles or syringes with someone who has the virus. The study also found that reluctant to live with people having HIV/AIDS in the same community may lead to stigmatization. The study findings agrees with a study by Teshome, Youjie, Habte and Kasm (2016) who established that a significant correlation between comprehensive HIV/AIDS knowledge and acceptance attitude towards persons living with the

disease. Higher comprehensive knowledge was found among women in Burundi compared to Kenya and Ethiopia. The stigma associated with HIV has long undermined HIV prevention and treatment efforts (UNAIDS, 2008). HIV-related stigma inhibits open discussion of the epidemic, and fear of discrimination or disapproval may also deter individuals from seeking the services they need.

In some instances, individuals may actually avoid taking steps to protect against HIV transmission out of fear that they may be considered potentially infectious or thought to belong to a marginalized group that has been heavily affected by the epidemic (The Kenya AIDS epidemic update 2011). Bluthenthal et al. (2012) in their study found that affirming beliefs, norms and attitudes are not a prerequisite for a congregation to initiate HIV activities, a finding relevant for HIV service providers and researchers seeking to engage congregations on this issue. Inconsistent condom use puts individuals of great risk being infected with HIV/AIDS and is also one of the major risk factors for acquiring the virus (Pinkerton & Abramson, 1997). Among the youths in this study majority had sexual relations, and it was more common among men to have had sexual relations with more than one partner.

Majority of the male and female had never used a condom and that they had not used a condom the last time they had sex and a majority of the women would not use a condom even if they could get them for free. One reason for this could be that many female youth felt less comfortable discussing HIV and issues of condom use, as cultural factors discourage women from discussions of sex (Mullany Maung & Beyrer, 2003; Bradley et al., 2011). The proportion of individuals who used a condom during last sexual intercourse and the number of sexual partners varies widely globally though, where access and information about HIV are different from country to country (Crosby et al., 2012).

5.4.3. Sex Education and Feelings Towards PLWHA

The study found that people living with HIV/AIDS should never be regarded as an outcast. The study also found that avoiding sex with a person with many partners will help in prevention of HIV/AIDS. The study found that the respondents were of the opinion that people with HIV should be kept out of school. The findings agrees with a study by Feyissa, Abebe, Girma & Woldie, (2012) who found that higher levels of stigma and discrimination against PLWHA were associated

with lack of in-depth knowledge on HIV and orientation about policies against stigma and discrimination.

Zou (2009) established that that shame-related HIV stigma was strongly associated with religious beliefs such as the belief that HIV is a punishment from God. Amoako-Agyeman (2012) investigated the relationships between adolescent religiosity and attitudes to HIV/AIDS. The study found that showed relatively high levels of religiosity and a preference for private religiosity as opposed to organizational religiosity. The regression analysis produced significant relationships between factors of attitudes to HIV/AIDS and of religiosity.

Negative attitudes regarding people living with HIV may be abating somewhat over time. From 2003 to 2008 and 2009, increases were reported in the percentage of both women and men who expressed willingness to care for a relative with HIV, a willingness to buy food from an HIVinfected vendor, and a belief that HIV-positive teachers should be allowed to continue to teach. However, stigmatizing attitudes persist. Nearly half of all Kenyan women surveyed in 2008– 2009 said they would want to keep a family member’s HIV infection secret (Kenya National Bureau of Statistics, 2010).

5.5. Conclusion of the Study

The study concluded that internet is of great importance in provision of sex education. The study also concluded that sources of HIV/AIDS infection include unprotected sex. The study concluded that HIV can be spread by sharing needles or syringes with someone who has the virus. The study also concluded that reluctant to live with people having HIV/AIDS in the same community may lead to stigmatization. The study concluded that people living with HIV/AIDS should never be regarded as an outcast. The study also concluded that avoiding sex with a person with many partners will help in prevention of HIV/AIDS.

5.6. Recommendations of the Study

Based on the study findings the following recommendations were made:

1. The acquired data would be valuable to governmental and non-governmental organizations, and national and international bodies interested in sex education in our schools which has been hindered by the religious community as well as our legislative

houses. This study thus recommends that educators must provide more than just accurate information about HIV/AIDS. They must be aware of the differences between female and male's attitudes and behaviors with regard to HIV/AIDS.

2. The study may be of benefit to the academicians in that it will establish a foundation for further research concerning the effect of sex education on the attitudes towards HIV/AIDS among Christian teenagers, especially in Kenya where a multiplicity of cultures exists. This study thus recommends that academicians must make a qualitative study to understand more deeply why the female have poorer knowledge on HIV and its transmission compared to the male
3. Youth should be involved in the intervention design in order to ensure relevance of 61 programs to them. The success of youth-specific interventions often depends greatly on how the youth relate to their service provider and, in turn, how those providers and institutions succeed in empowering and integrating youth. Similarly, the local governments, development partners, civil society organizations in the region should involve youth as early as possible.
4. Targeted media and social marketing campaigns should be used in communities to improve young people's knowledge about HIV and AIDS. Programs that use a mix of media show significant outcomes on HIV knowledge and skills as well as on condom use. Higher levels of program exposure increase the likelihood of behavior change.
5. Training peers to be positive role models that can positively influence young peoples' behaviors, facilitating access to and creating trust among young people.

5.7. Suggestions for Further Studies

Opportunity for further research in the subject matter exists thus: it would be interesting to compare the findings with other age groups in other counties. The population of the study would be much bigger; a second study is suggested to come up with a standard acceptable utilization levels. This will provide a standard upon which such studies can be replicated.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR THE YOUTHS

Dear respondent, kindly provide correct and useful data and fill appropriately as logically guided. (This questionnaire has been provided as a word document that can be filled out in soft copy and returned via e-mail; or printed, filled out and mailed).

SECTION A: GENERAL INFORMATION

1. Gender of the respondent

a) Male () b) Female ()

2. Indicate your family structure

Nuclear family []

Extended family []

Single parent []

3. Indicate your religion

Christian []

Muslim []

Hindu []

Others []

SECTION B: Source of Sex Education on Behaviour Towards PLWHA

4. How important as a source of knowledge about sex education and HIV/AIDS are the following to you personally? Use a scale of 1-5 where 1- not at all 2- little 3- moderate 4- quite important, 5-very important

| Statements | 1 | 2 | 3 | 4 | 5 |
|------------|---|---|---|---|---|
| | | | | | |

| | | | | | |
|--------------|--|--|--|--|--|
| Television | | | | | |
| Parents | | | | | |
| Magazines | | | | | |
| Internet | | | | | |
| Health Clubs | | | | | |

5. The following are some statements on the perception of HIV/AIDS among the youth. Indicate your level of agreement with each statement. 1- Disagree 2- Neither agree nor disagree 3- Agree 4-Strongly agree

| Statements | 1 | 2 | 3 | 4 |
|--|----------|----------|----------|----------|
| HIV is a contagious disease | | | | |
| People having casual contact with people living with HIV may get infected | | | | |
| Sources of HIV/AIDS infection include unprotected sex | | | | |
| Sexual intercourse without a condom may lead to HIV infection | | | | |
| Having oral sex with an HIV infected person may lead to contacting the virus | | | | |

SECTION C: Source of Sex Education and Belief Towards PLWHA

6. Indicate the level of agreement with each statement in relation to how source of sex education shapes the beliefs with regard to HIV/AIDS. 1- Disagree 2- Neither agree nor disagree 3- Agree 4-Strongly agree

| Statements | 1 | 2 | 3 | 4 |
|-------------------|----------|----------|----------|----------|
| | | | | |

| | | | | |
|--|--|--|--|--|
| HIV is transmitted through hugging an infected person | | | | |
| HIV can also be passed from infected pregnant woman to her unborn baby during pregnancy, birth and breast milk | | | | |
| HIV is transmitted by simple casual contact such as kissing | | | | |
| Condoms will decrease the risk of HIV transmission | | | | |
| HIV is can be spread by sharing needles or syringes with someone who has the virus | | | | |

7. The following are some statements on the beliefs of HIV/AIDS among the youth. Indicate your level of agreement with each statement. 1- Disagree 2- Neither agree nor disagree 3- Agree 4-Strongly agree

| Statements | 1 | 2 | 3 | 4 |
|---|----------|----------|----------|----------|
| Willing to live with people having HIV/AIDS in the same community may reduce bad belief towards people living with HIV/AIDS | | | | |
| Reluctant to live with people having HIV/AIDS in the same community may lead to stigmatization | | | | |
| Dislike having contact with HIV/AIDS people as it may lead to infection | | | | |
| Contact with people living with HIV as before may lead to infection | | | | |

SECTION D: Sex Education and Feelings Towards PLWHA

8. The following are some statements on feelings towards HIV/AIDS among the youth. Indicate your level of agreement with each statement. 1- Disagree 2- Neither agree nor disagree 3- Agree 4-Strongly agree

| Statements | 1 | 2 | 3 | 4 |
|--|----------|----------|----------|----------|
| Feel empathetic towards people living with HIV and AIDS | | | | |
| Discriminate feelings against people living with HIV and AIDS | | | | |
| People living with HIV/AIDS should never be regarded as an outcast | | | | |
| People have negative feelings towards people living with HIV/AIDS | | | | |
| HIV vulnerability caused by religious beliefs and practices is the result of religious institutions' denunciation of HIV infection as sinful | | | | |
| Individuals suffering from HIV/AIDS and who are unemployed tend to be socially isolated and suffer more anxiety and depression | | | | |

9. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree; Please indicate the extent to which you agree with the following statement prevention of HIV/AIDS.

| HIV could be avoided by | 1 | 2 | 3 | 4 | 5 |
|--|----------|----------|----------|----------|----------|
| Abstaining from sex | | | | | |
| Using condoms | | | | | |
| Avoiding sex with prostitutes (Commercial sex workers) | | | | | |
| Avoiding sex with a person with many partners | | | | | |
| Seeking protection from traditional healers | | | | | |
| Avoiding blood transfusions (everywhere) | | | | | |
| Avoiding sex with persons of same-sex | | | | | |
| Avoiding doctors who help HIV positive | | | | | |

10. What is your opinion on the following statements

| Statements | Yes | No |
|---|------------|-----------|
| People with HIV should be kept out of school | | |
| I would end my friendship if my friend had AIDS | | |
| I am willing to do volunteer work with AIDS patients | | |
| I would buy vegetable from an HIV positive shop keeper | | |
| If a family member contracts HIV they should move out of home | | |
| If a family member is HIV positive it should be kept a secret | | |
| People with HIV should stay indoors or in a hospital | | |

THE END

THANK YOU

APPENDIX II: MAP OF DAGORETTI NORTH CONSTITUENCY

