TEACHERS' ATTITUDE TOWARDS SEX EDUCATION ON HIV/AIDS AWARENESS CAMPAIGN IN SENIOR SECONDARY SCHOOLS IN NASSARAWA EDUCATION ZONE

KANO STATE

BY

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APPROVAL SHEET

This research work on "Teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State" has been read and approved as meeting the requirement of the Department of Education, Bayero University, Kano for the award of Master of Education Degree in Educational Psychology.

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CERTIFICATION

I hereby certify that this research work “Teachers’ attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State” is the product of my own research efforts; undertaken under the supervision of Prof SalisuShehu and has not been presented elsewhere for the award of a degree or certificate. All sources have been duly acknowledged.

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DEDICATION

This work is dedicated to my parents Ali Haruna Tudun Wada and Fatima Aliyu, and to those who struggle for the fight against HIV/AIDS.

ABSTRACT

The study investigated teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano state. The background to the study highlighted the trends and issues in sex education as well as the problems and risk factors associated with adolescence sexual behaviour. The significance to how the findings of the study could be important to teachers, ministries of education, researchers, and stake holders in the field of education were outlined. Among the objectives of the research was to find out the attitudinal disposition of teachers to sex education and HIV/AIDS awareness campaign in secondary schools. It also investigated whether teachers have positive attitude to sex education and HIV/AIDS awareness campaign based on their gender, school type and teaching experience as a means to prevent students from sexual promiscuity and safeguard their health. The population consists of one thousand, three hundred and ninety five teachers in Nassarawa Education Zone, Kano state. Out of these a sample of two hundred and ninety seven teachers was drawn for the purpose of the research using the Proportionate sampling technique. Descriptive survey design was used for the study, and the instrument used to generate data from respondents was a researcher designed questionnaire. The data obtained was analysed using the t-test statistical tool. The findings of the study revealed that teachers in both boys' and girls' schools have positive attitude towards sex education and HIV/AIDS awareness campaign in secondary schools. It also revealed that there was no significant gender difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in schools. Likewise, the attitude of new and old serving teachers does not significantly differ on the relevance of sex education and HIV/AIDS awareness campaign in schools. Among the recommendations proffered from the research is that teachers should be strengthened with more competent skills to impart the knowledge of sex education and HIV/AIDS awareness in schools.

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Operational Definition of Terms

Teachers Attitude - Attitudinal disposition of teachers on sex education and HIV/AIDS

Sex Education - Consciously planned instruction to awaken students' consciousness regarding sexual behaviour

HIV/AIDS - Disease that weakens the body immune system

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
DNA	Deoxyribonucleic acid
EPIC	Emergency Plan and Implementation Committee
FMoH	Federal Ministry of Health
HIV	Human Immunodeficiency Virus
MTCT	Mother-to-child transmission of AIDS
NACA	National Action Committee on AIDS
NARHS	National HIV/AIDS and Reproductive Health Survey
NEACA	National Expert Advisory Committee on AIDS
NASCP	National AIDS and STDs Control Programme
PLWAS	People living with HIV/AIDS
PMTCT	Prevention of mother-to-child transmission of AIDS
RNA	Ribonucleic acid
SIECUS	Sexuality Information and Education Council of the United States
STIs	Sexually Transmitted Infections
UNAIDS	United Nations Joint Action Committee on AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations International Children Education Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organisation

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Sex Education is a topic that generates a lot of controversy in recent times. It is however not a new issue of discussion in the Nigeria Education system despite the fact that it has ceased to be implemented into the curriculum system of Education as a subject of its own. Educationists have over the past two and the half decades tried to establish a cogent blue print concerning the need to educate the adolescent-in-school, whose mind is in a vacuum with regard to culturally regulated sex development. It is this vacuum therefore that various new attitudes from alien/foreign cultures are doing all they can to fill on behalf of the culturally tied and conservative nature of our society.

Describing sex education as an instruction, it relates to those issues of human sexuality, including human sexual anatomy, sexual reproduction, and development of the sex organs, reproductive health, emotional relations, abstinence and birth control. Moreover as an instruction, the common avenues for sex education are the parents, caregivers, formal school programmes and of course family/public health campaigns.

The instruction of sex education in schools has been a major concern to educators and at which level is the topic supposed to be taught to students. According to Action Health Incorporated (2008), in Nigeria adequate attention has not been given to adolescent reproductive health despite the fact that recent data show that the age of menarche and primary puberty in boys is dropping, there is early initiation of sexual activity; high incidence of teenage pregnancy; prevalence of sexually transmitted diseases including HIV/AIDS, educators are still nursing the

idea and beliefs that arise from our socio-cultural heritage where issues relating to sexuality are usually not openly discussed.

Traditionally, adolescents were not given any information on sexual matters, with discussions of these issues being considered taboo. Example of these could be seen even within the context of the Nigerian traditional society where in the core Northern States of the Hausa Tribe, any form of formal premarital sex programme is extremely considered a taboo but the reverse is the case in especially the Southern Nigerian culture where adolescents are freely allowed to intermingle at both formal and informal gatherings. The trend of this inter-cultural relationship is evident in Nassarawa and Fagge local governments as they are having the highest number of settlers from other Nigerian cultures and the influence of this relationship is significant to the indigenous Hausa tribe who practice the Islamic religion.

HIV is a virus, some people are afraid because they do not understand it. Discrimination against people living with HIV in the society makes it difficult for them to talk about the disease and shy away from seeking for help. HIV positive individuals have a future and can live well. They can enjoy many happy years with families and friends and also plan their future with loved ones. The issue of HIV/AIDS in recent times and its sudden implosion among the vulnerable youth who are sexually active has also been a source of concern. The chief source of contacting this disease is believed to be through sexual misdealing especially among adolescent group where researches have shown that the age group of 15-49 years of age is most affected with the deadly scourge. The attention of this vulnerable group needs to be drawn to the dangers and risk of contracting HIV and the attendant consequences one may face from the society. One of such problems is the stigma usually attached to some diseases.

Stigma is a common reaction to certain diseases especially in the case of HIV as people seem to be visibly afraid despite the fact that it is not as deadly as many think it to be with the right

management and care by the victim. Most often lack of correct information about the disease and fear of formidable death make individuals to be silent on their predicament even if it could be brought under control. One of the chief roles of teachers is assisting students to enlighten them on strategies of coping with stigma and discrimination if the need should arise. They ought to be given such information that HIV infection is a disease that can affect anyone rich or poor, men, women and children alike. And that HIV is not a terminable disease as it is thought to be by misinformed individuals. Students should be taught to know that people with HIV have done nothing wrong in their life as to deserve punishment and they can live a long life with it. They need to learn about HIV/AIDS and even explain to others as their contribution to the community.

Conclusively, sex education in psychology is a necessitated demand due to the threat that is imminent in today's world and which requires an individual to cope with the changing situation. Teachers need to be involved in the campaign as they are having a direct contact and influence in the mind of their students. The threat of relatively mild STDs to the more severe ones such as HIV/AIDS also needs to be focused on, so as to secure the lives of the students and their future career.

1.2 Statement of the Problem

The prevalence of HIV/AIDS among adolescents is over the years becoming a pandemic case and its implications on the academic activities of students. HIV is a virus that culminates into the dreaded Acquired Immune Deficiency Syndrome. The outbreak of AIDS has given a new sense of urgency to sex education especially in secondary schools where students are at the peak of their adolescence stage. The problem of HIV to the educational system and students as products of our schools has a lot of bearing on the students' education, social life, psychological and physical being as well as emotional ability. Educationally, HIV forces the adolescent students to be less concentrative in school as they will be struggling with their ailing immune

system, resulting in a chronic, progressive illness that leaves them vulnerable to opportunistic infections. This will also lead to the body's inability to fight infections and hence bring the total health of the victim into jeopardy, disallowing him to benefit from the advantage of readiness in learning. Moreover, it will also lead to the inability of the adolescent who is growing into adulthood the chance to further his education and achieve a fruitful life.

The social life of the adolescent is abruptly cut short as he/she would find it difficult to engage in social activities taking place in and outside the school. This leads to the worst situation in life where the victim will be experiencing stigmatization. Recent researches have revealed that the effect of HIV on the psychological state of an individual is very devastating as it results to problem of concentration and performance. The effect of their career is reduced to a hopeless condition or situation due to the fear of formidable death. The adolescent may exhibit some stressful conditions and develop sense of apathy, guilt, anger, and sadness.

The attitude of teachers toward the teaching of sex education in secondary schools has become a source of worry as a contemporary social vice and educational setback. Teachers initially show disapproval and fear toward teaching sex education in schools thinking it may result to some immoral behavior from the students. But the current issue of HIV/AIDS taking the centre stage in the life of adolescents makes it necessary to investigate teachers' attitude toward sex education on HIV awareness campaign in senior secondary schools. Nevertheless, sex education services for adolescents remain controversial issue in Nigeria as surveys conducted nationally show that teachers ought to be the primary sexual educators of students. The closeness of teacher-student relationship could be effectively utilized by the school and HIV campaign organizers in securing the life of unsuspecting and innocent students through unambiguous curriculum content of sex education that could be accepted and put across in schools. Therefore

this study investigated the attitude of teachers towards Sex Education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State.

1.3 Objectives of the Study

The objectives of this research work are:

1. To find out teachers' attitude towards sex education on HIV/AIDS awareness campaign based on school type in senior secondary schools in Nassarawa Education Zone, Kano State.
2. To find out whether there is gender difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone.
3. To find out teachers' attitude towards sex education on HIV/AIDS awareness campaign based on teaching experience in senior secondary schools in Nassarawa Education Zone, Kano State.

1.4. Research Questions

The following research questions are the focus of this study:

1. What is the attitude of teachers towards sex education on HIV/AIDS awareness campaign based on school type in senior secondary schools in Nassarawa Education Zone, Kano State?
2. Is there any gender difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State?
3. Is there any significant difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign based on teaching experience in senior secondary schools in Nassarawa Education Zone, Kano State?

1.5. Research Hypotheses

The research work is set to test the following null hypotheses:

HO.1. There is no significant difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign based on school type in senior secondary schools in Nassarawa Education Zone, Kano State.

HO.2. There is no significant gender difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State.

HO.3. There is no significant difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign based on teaching experience in senior secondary schools in Nassarawa Education Zone, Kano State.

1.6 Significance of the Study

Since the study focuses on teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone, Kano State, the following benefits would be expected to be achieved:

The study will reinvigorate teachers especially psychologists in developing a clear and acceptable blue print for the teaching of sex education and HIV/AIDS campaigns in schools. This will make the teachers participate more actively in the teaching of sex education and HIV campaign in schools.

The findings of the study will also pave way for the students to correct their image towards sex and benefit from the teaching of sex education and HIVAIDS awareness campaigns in schools.

The State Ministry of Education can organize seminars and workshops for teachers on the impact of education to HIV/AIDS awareness campaign in schools through unambiguous curriculum content.

And lastly, future researches are expected to build upon this research work so as to continue with the HIV/AIDS awareness campaign especially to adolescent groups in secondary schools.

1.7 Scope and Delimitation of the Study

The study attempted to investigate teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools. The scope of the research work focused on male and female teachers with different socio-economic background and having different levels of qualification. The study is limited only to public senior secondary schools in Nassarawa Education Zone of Kano State. The zone is a metropolitan area comprising of Nassarawa and Fagge Local Governments.

CHAPTER TWO

REVIEW OF RELATED LETERATURE

2.1 Introduction

This chapter reviews the literature related to the study comprising both conceptual and theoretical studies in the area of research. It also entails discussion on empirical data related to sex education and HIV/AIDS.

2.2 The Concept of Attitude

Attitude is an expression of favour or disfavour toward a person, place or event. Mangal (2011) describe attitude as the most distinctive and indispensable concept in contemporary social psychology. He states that attitude is an evaluation of an attitude object, ranging from extremely negative to extremely positive. A subject attitude can be as a positive or negative evaluation of people, events or ideas. It could be concrete, abstract or just anything in the environment.

Eagly and Chaiken (2008) define attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. They stress that attitude could be a discrete emotion or overall arousal toward an object. Attitude may influence the attention of attitude objects, the use of categories for encoding information and the interpretation, judgement and recall of attitude-relevant information.

Main (2004) in his definition of psychological types define attitude as readiness of the psyche to act or react in a certain way. Attitude often come in pairs; one conscious and the other unconscious. The conscious has a constellation of contents different from that of the unconscious, a duality evident in neurosis.

2.2.1 Models of Attitude

Attitude Component Model: According to Rosenberg and Hovland (2008) a multi component model is the most influential model of attitude. These components are cognitive, affective and behavioural.

The Cognitive Component: This component of attitude refers to the beliefs, thoughts and attributes that we would associate with an object. Most times, a person's attitude might be based on the negative and positive attributes they associate with an object.

The Affective Component: This component of attitudes refers to the feelings and emotions linked to an attitude object. Affective responses influence attitudes in a number of ways. For instance, one may develop a fear about an object thereby forming a negative response toward similar objects.

The Behavioural Component: This component of attitudes refers to past behaviours or experiences regarding an attitude object. The idea is that people might infer their attitudes from their previous actions.

Functionalist Theory of Attitude: Liska (2009) proposed a functionalist theory of attitudes. He takes the view that attitudes are determined by the functions they serve for us and people hold given attitudes because they help them achieve their basic goals. Liska (2009) distinguishes four types of psychological functions that attitude meet:

a. Instrumental: People develop favourable attitudes towards things that aid or reward us. He believes that people develop attitudes that help them meet these goals and avoid undesirable consequences.

b. Knowledge: Attitudes provide meaningful, structured environment. In life, people seek some degree of order, clarity and stability in their personal frame of reference. Attitudes help

supply us with standards of evaluation, and through such attitudes as stereotypes, we can bring order and clarity to the complexities of life.

c. Value expressive: This helps individuals to express values and reinforce self image.

d. Ego defensive: According to Katz, some attitudes serve to protect us from acknowledging basic truths about ourselves or the harsh realities of life thus serving as defence mechanisms.

2.3 The Concept of Sex Education and its Role in preventing HIV/AIDS

According to Oladele (2004) sex education is a process of making the individual develop positive and wholesome attitude towards sex. He further explained that it is a process that will enable the individual to lead a full life, enjoy his or her life, and also of developing to a responsible member of the society to which he or she belongs. He also explains that sex education could be relevant in shaping children's behavior towards sex by proper training and education, and that healthy relationships could be fostered between the sexes especially during their late adolescence, and prepare to help them in every possible way so that emotional problems could be kept at some minimal level. This means that emphasizing the virtue of sex at the appropriate level of life must be encouraged while pointing out the evils of it could best be achieved by adopting sex education in the school with the full knowledge and consent of the parents.

Oladele (2004) argues that sex education is a medium for preparing youths to cope with their developmental task of becoming responsible men and women in future. It also entails giving correct and factual information and understanding of problems of sex such as its development, function and expression. He further emphasized that the curriculum for sex education should be flexible enough in persuading the youths to avoid sex abuse and sexual delinquency by cultivating wholesome attitudes to sexual experiences until when they are

matured enough to do so. He finally suggests that sex education should enable the youths to develop self-respect and self-control with due consideration to their role in life.

Bay-Cheng (2001) defines sex education as the study of the human reproduction system, hopefully including its emotional and sociological aspects, as well as knowledge of how to protect oneself against pregnancy. Campogni (2011) explains that sex education is education about sex in terms of gender, disease, reproduction and human sexual anatomy.

Burt (2009) defines sex education as the study of the characteristics of being, a male and female. He said such characteristics make up the persons sexuality, which is an important aspect of the life of a human being. He further said that sex education stands for protection, presentation, extension, improvement and development of the family based on accepted ethical ideas. Boyd and Bee (2009) believe that sex education educates people on the dangers, and what can happen when partaking in unprotected sex.

Kearney (2008) also defined sex education as "involving a comprehensive course of action by the school, calculated to bring about socially desirable attitudes, practices and personal conduct on the part of children and adults that will best protect the individual as a human and the family as a social institution". He further stated that "various aspects of sex education are considered appropriate in school depending on the age of the students or what the children are able to comprehend at a particular point in time.

Kirby (2007) expressed that sex education is not merely a unit in reproduction and teaching how babies are conceived and born. It has far richer scope and goal of helping the youngster incorporate sex most meaningfully into his present and future life, and to provide him with some basic understanding on virtually every aspect of sex by the time he reaches full maturity.

Kirby (2007) identified characteristics that were common among sex education programmes and found to be most successful in reducing STIs and HIV. These are:

i. Set measurable health outcomes with specific behaviors attached.

ii. Discuss behaviors through public health model of prevention and give accurate statement regarding effects of these behaviors.

iii. Giving information regarding knowledge, risks, peer influence, and other factors associated with sexual health.

iv. Try to include service learning component with voluntary work by the community.

This means that the programme for sex education needs a comprehensive approach and planning that will encompass all the individuals' attitude and behavior concerning a sound and healthy sex education.

Developing on sex education programme to adolescents, Kirby (2007) propose some models that could be adopted while planning sex education programme:

i. To increase parental communication through a family system model.

ii. To create an environment in which students feel comfortable discussing personal issues.

iii. To consider the characteristics of the target group when developing activities.

iv. To introduce activities and topics in a sequential order, that has relevance to adolescents in school.

v. To make sure that teaching methods employed will not only catch the attention of the students, but will also help change their sexual behaviors.

UNAIDS (2006) asserts that sex education provides young people with age-appropriate, culturally relevant and scientifically accurate information. It includes structured opportunities for young people to explore their attitudes and values, and to practice the decision–making and other life skills they will need, to be able to make informed choices about their sexual lives. And that effective sex education is a vital part of HIV prevention.

Bay-Cheng (2001) explains that sex education is an integral and important part of human development with particular attention to the adolescence stage. The goal of sex education which is also a major component of comprehensive health education is to help children and adolescents to become healthy adults with responsible health behaviors. However, Cheng (2001) believes that sex education often is approached with great anxiety and addressed in little detail in school, community programmes and homes; family life education on the contrary encompasses a broad range of topics that prepare young people for marriage, parenthood and responsibilities.

Oladele (2004) says there is a pervasive fear that sex education will promote adolescent sexual activities and increase the risk of pregnancy, sexually transmitted infections and HIV among teenagers, but careful and objective research during the last two decades has proven that sex education does not increase rates of sexual activities among teenagers but that it increases their knowledge about sexual behavior and its consequences, and also increases prevention behavior among those who are sexually active.

He also stressed that young people are exposed to numerous influences upon their sexual attitudes and behaviors every day from the media, their peers, parents and other adults. Sex education/family life education is therefore valuable in its ability to truthfully educate young people about sex and its risks; to provide them with knowledge to protect themselves from unwanted pregnancy and STIs, including HIV infection. Young people must have accurate and sufficient information to make responsible choices and to become responsible adults. Teaching correct information about sexuality or any other topic in school does not prevent any parent from teaching and modeling values and expectations in the home rather should assist parents in providing opportunities for family communication.

Rosen, Murray and Moreland (2003) believe that sexuality education is effective in improving youth reproductive health behaviors and that comprehensive school-based sexuality

education influences important behaviors such as delaying sexual imitation, reducing the number of sexual partners, and of increasing use of condoms among youth who are sexually active.

They also point out that advocates for sexuality education must plan accordingly for such long-term engagement and not overnight success. It is also important to involve young people themselves in the advocacy effort in as many ways as possible and to give parents and teachers better skills for transmitting information on sexuality and health risk behavior to their children and students.

Adepoju (2005) says sexuality education in Nigeria is a huge task, though it has many prospects, it also faces many challenges. Its prospects and challenges are found in the various dimensions of sexuality education as follows:

Society, Culture and Sexuality: Interactively, complex set of biological, psychological and socio-cultural issues influence the human sexuality. The way we feel about our worth, the way we think and our body image play important roles in our sexuality. Sexuality is one of the major concerns of traditional societies and that the ideology on which traditional sexual education was based was biological which perfectly corresponded with the prevailing socio-economic conditions. The idea of social constructionist, from which sexual identities and experiences are acquired, is influenced and modified by the ever changing social environment. That is, society and culture control both the biological and psychological components of sexuality in the sense that people acquire and assemble meanings, skills and values from other persons around them (Adepoju, 2005).

Religion and Sexuality: It has often been said that, behaviour comes out of belief systems hence many people have equated sexuality education with some form of religion that has emanated as a response to adolescents' sexual health problems. Religion plays an important role in individual's sexuality as its principles, regulations and practices affect our everyday

interactions. Adepoju (2005) emphasize that religious beliefs influence sexual attitudes and behavior. Religion therefore shapes our thinking and character as human beings and keeps us abreast to the divine revelations' rules on the human folk. They opine that religious and spiritual beliefs influence feelings about morality, sexual behavior, premarital sexual behavior, adultery, divorce, contraception and abortion. Some of the positive impact of religion on sexuality have been said to include assertiveness, postponement of age of first sexual experience, diminished pre/post–marital sexual permissiveness, responsible relationships in marriage and parenthood.

Adepoju (2005) says Islam endorses any form of beneficial knowledge which must be acquired by every Muslim male or female and also recognizes the dynamic of change in human societies as long as human reason is not placed at par or above divine wisdom. That is, God is the source of all knowledge hence any subject of study must be founded in the parameters set by and through revelation. The Islamic injunction believes that both Islamic moral philosophy and the social system of Islam have adequately taken care of the social problems beyond the conception and scope of sexuality education. It is strongly believed that religious knowledge, be it Islam or Christianity helps children to cultivate religious attitude towards life and orientate them towards self purification, self actualization and socialization. Both Islam and Christianity do not see the need for sexuality education in Nigeria.

Socio-economic status and Sexuality: The problem of low self–esteem and self worthlessness due to poor socio-economic background and lack of sexuality information has been identified by sexuality educators. It is generally believed that the socio-economic status of individuals greatly influences their sexuality and that, persons of low income status often think and act differently from middle class individuals in matters affecting their sexuality. That is to say the present sexuality education lacks balance to accommodate the needs of all individuals irrespective of their socio-economic background (Adepoju, 2005).

SIECUS (2000) defines sexuality education as a lifelong process of acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy, it encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. Sexuality education also addresses the biological, socio-cultural, psychological and spiritual dimensions of sexuality.

2.3 The Concept of Sexually Transmitted Diseases (STDs) with particular reference to HIV/AIDS and its prevalence in Nigeria

According to the World Health Organization (2012), HIV is a virus that infects cells of the immune system, destroying or impairing their function. Infection with the virus results in the progressive deterioration of the immune system, leading to immune deficiency. The immune system is considered deficient when it can no longer fulfill its role of fighting infection and disease.

Moses (2010) says AIDS stands for acquired immune deficiency syndrome and is the final stage of the infection caused by the virus called HIV which causes severe damage to the human immune system. Country Awareness Network (2008) believes that HIV is a virus that attacks and destroys the disease fighting cells of the immune system by which the body is left with a weakened defense against the disease. Walsh (1997) says HIV is a primary sexually transmitted disease and carries with it connotation of sin and evil.

Dybul (2008) explains HIV as a lentivirus (slowly replicating retrovirus) that causes AIDS, a condition in humans in which progressive failure of the immune system allows life threatening opportunistic infections to thrive. Aggarwal (2009) defines HIV as a virus that infects vital cells in the human immune system such as helper T cells (specifically CD + T cells, microphages and dendrite cells). The Joint United Programme on HIV and AIDS (2012) reviews the definition of HIV/AIDS as a disease of the Human Immune System caused by infection with HIV, with a

brief experience of influenza-like illness, and making people more vulnerable to infections and progression of disease.

Sewankambo (2008) says HIV/AIDS is a disease that continues to pose significant challenges to almost every aspect of human endeavour especially in Africa. He said although many people are already on treatment, many more require it. Also a certain percentage of those infected who are on first-line treatment are likely to require second or even third-line treatment in the relatively near future. And there is the enduring question of whether expensive models of care can be sustained in this low-resource setting, in the longer run.

American Psychological Association (2005) explains HIV as a "lethal virus" that makes a person "to act as a crazy person". She said HIV deals a blow to ones immune system which can only be curtailed with the timely intervention of the "miracle drugs" i.e. ARVS.

Emergency Plan Implementation Committee (2005) defines HIV/AIDS as a disease which gives way to opportunistic infections (OIs) that take advantage of the body's weakened protective system. Federal Ministry of Health, Nigeria (2005) says HIV is a retrovirus and belongs to the family of lentiviruses. Infections with lentiviruses typically have a chronic course of disease, a long period of clinical latency and persistent viral replication.

The FMoH (2005) believes that there are two types of HIV: types 1 and 2 and both have been documented as the causative agents of AIDS. They are named retroviruses because in the course of their replication, their genetic material is transcribed from ribonucleic acid (RNA) to deoxyribonucleic acid (DNA). This unique feature of the virus is due to the possession of a special enzyme known as the "reverse transcriptase".

The growing scourge of HIV/AIDS in Africa could best be described in Shah (2009) that "between 1999 and 2000 more people died of AIDS in Africa than in all the wars on the continent". Death toll from HIV is expected to have a severe impact on many economies in the

region. In some nations, it is already being felt. Life expectancies in some nations are already decreasing, while mortality rates are increasing. Approximately 7 out of 10 deaths resulting from AIDS in 2008 were in Sub-Saharan Africa, a region that also has over two–thirds of adult HIV cases and over 90 percent of new HIV infections amongst children.

Shah (2009) attributes the growing scourge of HIV in Africa to Western pharmaceutical companies, "that AIDS policy is now a key world commodity".

According to him, treatment, which medicines sans frontiers (Doctors without Borders) describe as having transformed HIV/AIDS from a death sentence to a chronic disease in developed countries, are expensive and affordable by mainly the wealthier people in western countries. However, poor people including those in industrialized nations are the major victims of HIV and AIDS.

In Nigeria, the first case of HIV/AIDS was reported in 1986 at an international AIDS conference. At first the Nigerian Government was slow to respond to the increasing rates of HIV transmission that it was only in 1991 that the Federal Ministry of Health made their first attempt to assess Nigeria's AIDS situation. The results showed that around 1.8 percent of the population of Nigeria was infected with HIV. Subsequent surveillance reports revealed that HIV prevalence rose from 3.8 percent in 1993 to 4.5 percent in 1998 (Orji, 2007).

FMoH (2005) says since the discovery of HIV in Nigeria in 1986, the number of people living with HIV or AIDS (PLWAS) steadily increased and the epidemic moved into a "generalized" state with an increase of sero prevalence from 1.8 percent in 1991 to 5.8 percent in 2001. This meant that Nigeria had 3.5 million infected persons, the third highest in the world.

According to the Ministry, the high burden of the disease, associated with mortality and morbidity, continues to be a major public health concern for the country. The epidemic has impacted on many segments of the society, and has significantly reduced gains in life expectancy

which Nigeria had achieved over the past four decades. The disease has further weakened and threatens to overwhelm the already weak Nigeria health care system. It has increased the number of orphans, as well as cost of achieving set developmental goals by decreasing the size of the workforce -as it affects mainly adults in their most productive years of life (15-49 years). The high manpower–intensive sectors of the economy are most affected including the agricultural, educational and health sectors as well as the rural economy. In summary, the ministry states that the impact of HIV/AIDS on Nigeria's social fabric and on its economic development and well–being continues to be pervasive and, unless controlled, will continue to undermine Nigeria citizens' quality of life.

National Action Committee on AIDS (2009) reports that the prevalence of HIV among Nigerians has been very high that 1 out of every 20 Nigerians is infected with the disease. It also says the sero-prevalence rate varies according to states with 1.2 percent in Osun State to 12 percent in Cross Rivers State in 2003. Benue State has however remained the highest State with HIV victims until recently when it was preceded by Rivers State in 2013 (NACA, 2013).

The Free Encyclopedia (2013) states that as of 2012 in Nigeria, the HIV prevalence rate among adults aged 15-49 was 3.1 percent. Nigeria has the second largest number of people living with HIV. The HIV epidemic in Nigeria is complex and varies widely by region. In some states, the epidemic is more concentrated and driven by high-risk behaviors, while other states have more generalized epidemics that are sustained primarily by multiple sexual partnerships in the general population. Youth and young adults in Nigeria are particularly vulnerable to HIV, with young women at higher risk than young men. There are many risk factors that contribute to the spread of HIV, including prostitution, high-risk practices among itinerant workers, high prevalence of sexually transmitted infections (STIs), clandestine high-risk heterosexual and homosexual practices, international trafficking of women, and irregular blood screening. It

further states that geographical spreading and size of population pose logistical and political challenges particularly due to the political determination of the Nigerian Government to achieve health care equity across geographical zones. The necessity to coordinate programmes at all levels introduces complexity into planning. The large private sector is largely unregulated and, more importantly, had no formal connection to the public health system where most HIV interventions are delivered. Training and human resources development is severely limited in all sectors and thus hampers programme implementation at all levels. Care and support is limited because existing staff are over stretched and most have insufficient training in key technical areas to provide complete HIV services.

Weby (2011) states that the prevalence of HIV/AIDS in Nigeria shows an estimated 3.6 percent are living with the virus. He further states that although HIV prevalence is much slower in Nigeria than in other African countries such as South Africa and Zambia, the size of Nigeria's population means that by the end of 2009, there were more than 3.3 million people living with HIV/AIDS. And that approximately 220,000 people died from AIDS in Nigeria in 2009. Nigeria's life expectancy has declined significantly with AIDS claiming so many lives. In 1991 the average life expectancy was 54 years for women and 53 years for men. However, in 2009 these figures had fallen to 48 and 46 years for women and men respectively.

NACA (2006) says despite increased efforts to control the epidemic, it was estimated that just 10 percent of HIV–infected men and women were receiving anti-retroviral therapy and only 7 percent of pregnant women were receiving treatment to reduce the risk of mother to child transmission of HIV.

World Health Organization (2010) asserts that prevalence of HIV/AIDS in Nigeria is due to distinct lack of HIV testing programme and awareness campaigns to the grass root levels. In 2007, it says just 3 percent of health facilities had HIV testing and counseling services and only

11.7 percent of women and men aged 15-49 had received an HIV test and found out the results. In 2009 there was only one HIV testing and counseling facility for approximately every 53,000 Nigerian adults.

National HIV/AIDS and Reproductive Health Survey (2003) says with the adult prevalence rate at 3.8 percent in 2001, the nation is at the threshold of an exponential explosive growth of the epidemic. It also states that some parts of the country are worse affected than others but no state is unaffected. In some states prevalence was higher than 10.0 percent. All the states have general population epidemics of over 1 percent and that there was no marked difference in HIV prevalence between major urban areas and sites outside major urban areas. The infection cuts across both sexes and all age groups. However, youth between 20-29 years are more infected, though in some parts of the country (South South and South West) there was a higher prevalence rate in the 15-19 years age group.

2.4 Transmission and Spread of HIV infection

Peter (2007) believes that the transmission and spread of HIV can be through the following ways:

i. Sharing needles, syringes or other injection equipment with someone who is infected.

ii. Mother to child transmission before or during birth, or through breastfeeding after birth.

iii. Transmission in health care settings as health professionals and workers in the work place are usually being stuck with needles or sharp objects containing HIV infected blood.

iv. Transmission via blood transfusion or blood clotting factors.

They however say that HIV has been detected in saliva, tears and urine in extremely low concentration since there hasn't been a single reported case of HIV transmission through these fluids.

Centre for Disease Control (2012) says HIV can be transmitted from infected person to another through blood (including menstrual blood), semen, vaginal secretions and breast milk. According to the centre, blood contains the highest concentration of the virus, followed by semen, and then vaginal fluids which are all higher than breast milk in terms of concentration of the virus. The spread of the virus according to the CDC (2012) could be through the following activities:

i. Unprotected sexual contact including vaginal, anal or oral sex.

ii. Direct blood contact including injection drug needles, blood transfusions, accidents in health care setting or certain blood products.

iii. Mother to baby before or during birth or through breast milk. Breast milk contains HIV, and while small amount of breast milk do not pose significant threat of infection to adults, it is believed to be a viable means of transmission to infants.

United Nations High Commission for Refugees (2006) stresses that sexually transmitted infections (STIs) and HIV/AIDS have become urgent concerns for populations affected by armed conflict and migration (both forced and voluntary) as they aid in spread of the disease. So also poverty, powerlessness, and social instability affect the spread of STIs and HIV. These conditions are characteristic of the lives of refugees and internally displaced persons. It also emphasized the need to focus on STI and HIV/AIDS prevention and response in conflict settings.

Moses (2010) cites some factors responsible for the spread of HIV/AIDS especially within a region or community hence resulting to epidemic level. These factors are:

i. Cultural factors: These are practices closely tied to certain cultural practices and belief despite the advancement in knowledge and modern practices. Some of these are mass circumcision (both male and female), widow inheritance marriage, skin and facial

piercing/tattoo, other blood related practices especially with unsteriled instruments, uninvestigated status marriage especially in blood-brotherhood marriage.

ii. Economic factors: These comprise of poverty that results to commercial sex activities and scavenging of young boys that results to being pricked by needle or sharp objects, severe malnutrition that may result to untimely death of victims, and other endemic diseases that result to full blown AIDS in HIV victims.

iii. Social factors: Among these are low condom use, misconception of media campaigns and awareness, stigmatization, and denial of HIV infection risk among vulnerable groups. There are also other anti social behaviours especially within groups such as cultism, injection drug abuse, and sexual recklessness.

Shah (2009) says in South Africa, a relatively wealthy African nation, during much of his term, former president Thabo Mbeki had long denied that AIDS resulted from HIV. Only through public outrage and international pressure was he forced to admit that there was a problem but not until after much damage has been done. In essence, he explains that most of the ideas projected into Thabo Mbeki's health reform system concerning HIV/AIDS were influenced by Rath, a vitamin-pill entrepreneur, who claims that anti-retroviral drugs were poisonous, and that "multivitamins treatment is more effective than any toxic AIDS drug, that multivitamins cut the risk of AIDS in half".

Shah (2009) cited that Msimang went further to criticize medical drugs for HIV by talking up their dangers and benefits. She declared that she would not be "Pressured" into meeting the target of three million patients on anti-retroviral medication, that people had ignored the importance of nutrition, and that she would continue to warn patients of the side effects of anti-retroviral, saying "We have been vindicated in this regard. We are what we eat". This

nevertheless might have contributed to the spread of HIV/AIDS in South Africa through the "wrong and misleading" claims by Rath (United Nations, 2006).

Shah (2009) says although there are numerous factors in the spread of HIV/AIDS, it is largely recognized as a disease of poverty, hitting hardest where people are marginalized and suffering economic hardship. IMF designed Structural Adjustment Programmes (SAP), adopted by debtor countries as a condition for debt relief, are hurting, not working, by pushing poor people even deeper into poverty; SAP may be increasing their vulnerability to HIV infection, and reinforcing conditions where the scourge of HIV/AIDS can flourish.

UNICEF (2004) stresses that mother-to-child-transmission (MTCT) of HIV accounts for 90 percent of the paediatric infections. Without prevention of MTCT interventions, it is estimated that about 35 percent of children born to HIV-positive mothers will become infected with HIV. At least one quarter of these infected children will fall ill and die by their first birthday. UNICEF considers it critical that all pregnant women can access prevention services.

Infectious Diseases Institute (2008) reports that HIV/AIDS Sero-behavioural Survey among discordant couples shows that "in 8 percent of couples, one or both partners are infected with HIV. Over half of these couples are discordant, that is one partner is infected and the other is not. This finding points to a need for interventions to prevent transmission of HIV to the uninfected partner".

2.5 Symptoms, Manifestations and Stages of HIV/AIDS

Symptom is a departure from normal function or feeling which is noticed by a patient, indicating the presence of disease or abnormality.

Federal Ministry of Health (2005) asserts that following primary infection, rapid and widespread dissemination of the virus occurs. This period is characterized by increased viraemia and a precipitous drop in CD4 lymphocyte count. The increase in viral burden begins to slow

down with the development of cellular immune response to the infection. As immune response becomes established, the CD4 Lymphocyte count rebounds but not to the pre-infection level. Sero-conversion occurs between 2-12 weeks after infection. The amount of virus in the peripheral blood falls dramatically after primary infection. Simultaneously, clinical symptoms like fever and fatigue associated with primary infection resolves and the HIV infected person enters a clinically latent phase of the disease. HIV infection has a long and variable latency, with median time to AIDS estimated at 10years.

Moses (2010) explains that after the first exposure to the AIDS virus when the individual is infected, he/she may pass through the following five stages:

i. Window Period: This lasts between 2-12weeks after the first infection. When the person has HIV but not symptoms of the antibodies or germ fighters in the blood, he/she can still infect others.

ii. Acute Infection Stage: Between 3-6months after infection. The person may experience mild fever, catarrh, and headache. However, with proper treatment, rest and balanced diet, the individual feels well and may show no further signs of illness for a relatively long time.

iii. Asymptomatic Stage: During this stage, no signs or symptoms are felt and may last between 6 months to 5 years. The HIV-positive individual looks and feels well. At this period, he/she goes like any normal person but may still infect others that have sexual or direct blood contact with him/her.

iv. AIDS Related Complex (ARC) Stage: This is a stage when other serious infectious diseases like tuberculosis and pneumonia affect the individual and make him/her develop symptoms that look like full blown AIDS such as high graded fever and diarrhea lasting

for over a month, painful swellings of organs (nodes) in armpit, groin or neck, and occasional on and off sicknesses.

v. Full-blown AIDS Stage: This stage shows significant signs and symptoms on the individual and also easily manifestible. This may appear 5 to 10 years after initial exposure to HIV. The immune system is seriously damaged that rare and serious infections (opportunistic infections) attack the individual and eventually leads to death.

United States Global Statistics (2013) says symptoms and stages in HIV are mutually related. Symptoms of HIV vary, depending on the individual and stage of the disease. These symptoms are:

i. Early stage of HIV: Within 2–4 weeks after infection, many, but not all people experience flu–like symptoms, often described as the "worst flu ever". This is called "acute retroviral syndrome" or "primary HIV infection". Symptoms can include fever (the most common symptom), swollen glands, sore throat, rash, fatigue, muscle pain, joint aches, and headache. These symptoms can last a few days to several weeks but does not however mean that one is infected by experiencing these symptoms alone.

ii. The clinical latency stage also called Asymptomatic or Chronic HIV infection: After the early stage of HIV infection, the disease moves into a stage called the clinical latency stage. "Latency" means a period where a virus is living or developing in a person without producing symptoms. During this stage, people who are infected with HIV experience no HIV related symptoms or only mild ones. The virus reproduces at very low levels, although it is still active and which if properly checked with antiretroviral therapy (ART) an individual may live for several decades. For people who are not on ART, this clinical latency stage lasts an average of 10 years, but some people may progress through this phase faster.

iii. The last stage of HIV infection according to the US Global statistics (2013) is the progression to AIDS level. The onset of symptoms signals the transition from the clinical latency stage to AIDS. This is however determined by level of compliance and adherence to medication (ART) and which failure results to the weakening of the body's immune system.

2.6 Screening and Diagnoses of HIV infection and AIDS

Testing for HIV infection can be done as screening tool in prevalence studies or prior to donation of blood for transfusion. This testing is usually anonymous and result of screening is not often communicated to the individual tested. Nevertheless, testing for diagnosis of HIV infection requires full consent of the subject, and should therefore, not be communicated as diagnosis to an individual (FMoH, 2005).

UNAIDS (2000) says Voluntary Counseling and Testing (VCT) is a process by which an individual under goes counseling, enabling him or her to make an informed decision about being tested for HIV. The client must be assured that the process is confidential. Counseling is aimed at enabling the person to cope with stress and make personal decisions related to HIV/AIDS. Counseling is an important component of initial and follow–up care for people living with AIDS (PLWA) including those receiving anti retroviral therapy.

The benefits of VCT for the individual (UNAIDS, 2000) include:

Improved health through education and nutritional advice

Early access to care (including use of ARVs) and prevention of HIV-related illnesses

Emotional support and better ability to cope with HIV-related anxiety

Awareness to safer options for reproduction and infant feeding

Motivation to initiate or maintain safer sexual behaviours

The agency has further categorized counseling in HIV into three as follows:

a. Counseling for ART in adults and adolescents

b. Counseling for ART in children

c. Counseling for ART in non-vertical transmission (adolescents)

World Health Organization and UNAIDS (1998) recommend three criteria for choosing an HIV testing strategy. They include:

1. Objective of the tests (surveillance, blood screening, or diagnosis).
2. Sensitivity and specificity of the tests.
3. HIV prevalence in the population being tested.

The philosophy of adopting these three criteria is that an HIV testing strategy can be selected to maximize sensitivity and specificity while minimizing cost.

FMoH (2005) says laboratory diagnosis of HIV infection is categorized into two ways. The choice of which one to use is driven by age, time of exposure and cost. The first is antibody tests for the detection of antibodies (immune response to presence of virus) in a patient's blood sample. These tests are:

i. HIV Rapid Testing: Can be very reliable and are generally cheap and easy to perform. Also very useful for surveillance purposes.
ii. HIV Enzyme-Linked Immunosorbent Assay (ELISA): This requires more equipment, time and technical skills.
iii. Western Blot: This is the gold standard confirmatory test.

Rapid tests and ELISA are subject to false negative and positive results, while Western Blot is expensive and subject to indeterminate results.

The second laboratory diagnosis is antigen detection methods for detection of the virus in a patient's blood sample. Tests under this category are:

iv. DNA Polymerase Chain Reaction (DNA PCR)
v. RNA Polymerase Chain Reaction (RNA PCR)

vi. P24: very specific but negative results do not rule out infection.

vii. Viral Culture: Time consuming and expensive.

Moses (2010) says blood test remains the best method of diagnosing HIV infection. Recently other tests have become available to look for these same HIV antibodies in the saliva and urine.

She moreover, suggested that individuals should be encouraged to be tested if:

i. They had vaginal, anal, or oral sex without protection with someone whose HIV status is not known.

ii. They shared needles or syringes to inject drugs including steroids and hormones.

iii. Become pregnant or considering becoming pregnant.

iv. Been diagnosed with STDs

v. Had hepatitis B,C, or Tuberculosis

vi. Had unexplainable weight loss that is greater or close to 10 percent of the body weight

vii. Prolonged fever or diarrhea

Shah (2009) asserts that HIV is most commonly diagnosed by testing ones blood or saliva for the presence of antibodies to the virus. Unfortunately, these types of HIV tests aren't accurate immediately after infection because it takes time for the body to develop these antibodies-usually up to 12weeks. She says a newer type of test checks for HIV antigen, a protein produced by the virus immediately after infection. This test confirms a diagnosis within days of infection.

An earlier diagnosis may however prompt people to take extra precautions to prevent transmission of the virus to others.

She also states that once an individual is diagnosed with HIV/AIDS, several tests can help to determine the stage of the disease. These tests include:

a. CD4 Count: CD4 cells are a type of white blood cell that is specifically targeted and destroyed by HIV. A healthy person's CD4 count can vary from 500 to more than 1,000.

Even if a person has no symptoms, HIV infection progresses to AIDS when his/her CD4 count becomes less than 200.

b. Viral Load: This test measures the amount of virus in the blood. People with higher viral loads generally fare more poorly than do those with a lower viral load.

c. Drug resistance: This blood test determines whether the strain of HIV one acquired will be resistant to certain anti-HIV medications and the ones that may work better.

2.7 Prevention and Treatment of HIV/AIDS

Moses (2010) states that there are two basic ways to be adopted in the prevention of HIV/AIDS:

a. Primary prevention: Abstinence from sex and delay of sexual debut in youth is the best way to avoid sexual transmission of HIV. There should be abstinence from sex until it is certain that both partners are not infected. The highest infection rates are in youth aged 15–29 years, and therefore early involvement in sexual activity is a risk factor for youth.

b. Secondary prevention: This has been sub–categorized into three:

i. Access to quality care and treatment by people living with HIV/AIDS (PLWHAS).

ii. Mitigating the effect of the disease on people living with HIV/AIDS, orphans and other affected groups.

iii. Creating network support group of people living with HIV/AIDS and others affected by AIDS.

Infectious Diseases Institute (2008) says from a care perspective, a strategic plan has to be developed as it will provide a framework for high-quality care to focus on complicated cases and second line treatment. This is important as it will address the fact that first line treatment will not continue to be adequate for everyone in the long run. Clients have to be fully engaged so as to help with the prevention and care process which is also important. The

institute also stresses that from a research perspective, dedicated research work has to continue to support the development of better models of care and prevention for low– resource settings. This is critical if HIV care across Africa is going to continue to evolve to meet the needs that are specific to this setting and different from those of places like the United States and many European countries. It also proposes that Clinics Targeting Specialized Populations (CTSP) need to be established. This it says will serve young adults between the ages of 16 and 24, and they require special attention because they are on the process of transitioning from paediatric care to adult care and could potentially fall through the cracks in this process. Many at this age bracket are becoming sexually active and have not yet been given extensive information about HIV transmission through sex.

FMoH (2005) says there are currently 6 classes of ARVs based on the mechanism of action. These are:

a. Non-nucleoside Reverse Transcriptase Inhibitors (NNRTIs) stop HIV production by binding directly onto the reverse transcriptase enzyme thus preventing the transcription of viral RNA to DNA.
b. Nucleoside Reverse Transcriptase Inhibitors (NRTIs), incorporate themselves into the DNA virus, thereby stopping the building process. The resulting DNA is incomplete and cannot create a new virus.
c. Nucleotide Reverse Transcriptase Inhibitor (NtRTIs) acts at the same stage of the viral life cycle as the NRTIs, but do not require to be phosphoric lasted for effective antiretroviral activity.
d. Protease Inhibitors (PIs) work at the last stage of the virus reproduction cycle. They prevent HIV from being successfully assembled and released from the infected CD4 cell.
e. Entry inhibitors also called HIV fusion inhibitors, prevent the HIV particle from infecting the CD4 cell.
f. Integrase inhibitors interfere with the ability of the HIV DNA to insert itself into the lost DNA and thereby copying itself. However Integrase inhibitors are still under development.

The ministry states the drugs under each of these categories:
Table 2.7

Nucleoside Reverse Transcriptase Inhibitors(NRTIs)	**Nucleotide Reverse Transcriptase Inhibitor(NtRTI)**	**Non-Nucleoside Reverse Transcriptase Inhibitors(NNRTIs)**	**Fusion Inhibitors**	**Protease Inhibitors (PIs)**
Zidovudine(ZDV) Didanosine(ddl) Zalcitabine(ddC) Stavudine(d4T) Lamivudine(3TC) Abacavir(ABC) Emtricitabine(FTC)	Tenofovir (Disoproxil Fumarate{TDF})	Nevirapine(NVP) Efavirenz(EFV) Delavirdine(DLV)	Enfuvirtide(T-20)	Saquinavir(SQV) Ritonavir(RTV) Indinavir(IDV) Nelfinavir(NFV) Amprenavir(APV) LOpinavir-ritonavir(LPV/r) Atazanavir(AZV) Tipranavir

Source: Federal Ministry of Health, 2005

These drugs are prescribed on fixed dose combination and thus initiation of therapy depends on availability of CD4 cell count testing (FMoH, 2005).

Duwa (2001) says control of sexually transmitted diseases calls for social responsibility of society with avoidance of promiscuous behaviour. The interest of the sexual partner must be remembered and protected. This becomes more so in polygamous settings where sexually transmitted disease has no cure, as in the case of AIDS, sexual protective device such as condoms must be used during sex. According to him in conditions where more than one method of transmission exist, such as in AIDS infection where the agent can be passed transplacentally from mother to child, methods of control would include proper screening of blood/blood products before giving same to individuals. However, transplacental spread of some of these diseases from mother to baby remain an important challenge to medical science.

Duwa (2001) cites that management of cases of sexually transmitted diseases are best treated in a hospital setting where both partners are investigated and treated adequately with appropriate drugs. He said because of the social stigma associated with these diseases, patients tend to avoid orthodox treatment for sub-standard, often secretive treatment with obvious consequence that these diseases are under-treated leading to their perpetuation and development

to more serious complications. He cites such treatments as those claimed by Babalaka (2000) and indeed many other native doctors that claim about "wonder medicines" that cure virtually all diseases on earth.

Problems of antiretroviral drugs (ARVs)

Since ARVs are the inhibitors that can help to improve the lives of HIV/AIDS patients, Moses (2010) says there are factors or challenges that make these drugs out of the reach of HIV/AIDS patients because of challenges faced by the scientific research communities on HIV/AIDS. These challenges are as follows:

a. ARVs are usually capital intensive in terms of research. It cannot be funded unless by multinational organizations, developed nations and other humanitarian agencies through funding from partner nations.
b. Prospects of research work are time consuming.
c. ARVs are expensive drugs and therefore cannot be afforded by the less privileged.
d. ARVs are not automatic cure drugs.
e. ARV drugs can no longer be effective when the HIV-virus has developed resistance.
f. ARVs have side effects like all other drugs.
g. ARVs regimen combination of drugs must be adhered to most especially when patients are on other different drugs.

2.9 Efforts at confronting HIV/AIDS globally with particular reference to Nigeria

The United Nations Organization (UNO) with its component departments are at the forefront of most of HIV/AIDS intervention programmes. The UNAIDS, the UNICEF, UNDP and a host of other agencies under the UNO provide both logistics and social support to member nations especially those with high prevalence and vulnerability to HIV/AIDS. There are also other international agencies that partake in the fight against this deadly scourge that was "thought

to pass with time" such as Society for Family Health (SFH), the Department for International Development (DFID), the United States Agency for International Development (USAID) and a host of other Governmental and Non-governmental Organizations.

In Nigeria however, the first National AIDS Advisory Committee was established in 1987, but as smith (2004) stated it was not until "much later before the government, the public and international agencies began seriously to address the emergent epidemic".

NARHS (2003) says Nigeria has passed through several phases in the response to the epidemic. The stages included an initial period of denial; a largely health sector response; and now a multi-sectored response that focuses on prevention, treatment and mitigation of impact interventions and divorce coordination and implementation as distinct response components. It further states that the health response which had started soon after the first reported case of AIDS in 1986 was initially mounted by an ad hoc National Expert Advisory Committee on AIDS (NEACA) in 1987 and supported by some state chapters set up soon after. By 1988, the National AIDS and STDs Control Programme (NASCP) were formally established to organize as well as to coordinate all HIV/AIDS activities at national and state levels. In 1997 the National Council on Health formally endorsed the multi-sectored approach and in 2000 the Federal Government commenced the implementation of this approach with the establishment of a Presidential Committee on AIDS (PCA) and a National Action Committee on AIDS (NACA).

Furthermore, a 3 year HIV/AIDS Emergency Action Plan (HEAP) was initiated in 2001. Implementation of the plan include partners like governmental institutions, non-governmental organizations, community based organizations, faith–based organizations and persons living or affected by HIV/AIDS.

FMoH (2005) asserts that in response to this challenge, the Federal Government of Nigeria initiated the National Antiretroviral Drug Access Programme with the goal of providing

access to affordable ARV drugs so as to improve the health and quality of life of people living with HIV/AIDS in Nigeria, and to meaningfully contribute to sustainable development of the nation. It also states that since there is no effective curative therapy that currently exists for AIDS, effective management of the condition must include an emphasis on compassion and support for people infected and affected by HIV/AIDS. The objectives of these strategy is to provide accessible, affordable and sustainable quality care for those infected by HIV/AIDS and also to provide them and those affected by HIV/AIDS with the ability to live positively in spite of their condition.

Other intervention programmes in Nigeria has been from the UNICEF (2002) which suggests primary prevention by promoting behavior change in youth for HIV prevention. It says one of the most effective ways to reach young people is to enable them play an active role in prevention campaigns. Nevertheless, Nigeria currently benefits from a high level of political commitment and international support. There is a high level of activities in all sectors; advocacy, prevention, care and support and the mitigation of the impact of the epidemic. However, there is a need to scale up activities, improve coverage, and monitor and evaluate the progress and effects of the interventions especially in prevention and management of sexually transmitted infections (STIs), including HIV infections and AIDS; promotions of healthy sexual maturation from pre-adolescence, responsible and safe sex throughout life and gender equality; and elimination of harmful practices as female genital mutilation, domestic and sexual violence against women and children to ensure that the desired goals and objectives are achieved (NARHS, 2007).

2.10 Theoretical models of Sex Education

Sex or peer education has grown in popularity and practice in recent years especially in the field of health promotion as well as protection. However, advocates of sex education rarely

make reference to theories in their rationale for specific projects. Nevertheless, to have a clear framework of the subject matter, adolescent sexuality can only be best understood through the consideration of the psychological factors that contribute to the sexual context. For example, there are some social psychology theories that can be used to help understand how interpersonal interactions can influence sexual functioning.

A psychological approach to sex education believes that adolescence is an important time period with regard to sexual development considering normal changes, increased sex drive, change in appearance and improved likelihood of production. The stages of sexuality largely depend on perception but usually begin with autoerotic behaviours, which translate into actual sexual activity with another person (Steinberg, 2011). Even though adolescent sexual behaviors are by all accounts normal, the implications related to it are of utmost concern to psychologists. And of major concern is the prevalence of sexual acrobatism during adolescence, in which effort to educate the youth continue to be a top priority of the educational system. In this context, most of the psychological theories have had impact on adolescent life and the developmental stages therein and as such would be assessed according to the various schools of psychology.

Psychosexual Stages Theory: These are stages proposed by Freud in his theory of psychosexual stages among which is the genital stage which begins at puberty/adolescence. During adolescence, sexual feelings emerge, marking the final period of psychosexual stages, which extends until death (Oladele, 2004). Heterosexual interest awakens during this time. The youth begins to love others for altruistic rather than selfish reasons. Initially, infantile sexuality demonstrates that children are born with sexual urges in the form of pleasure seeking which undergo a complicated development before they attain the familiar adult level.

Thorne & Henley (2005) argue that perversion was present even among the healthy, and that the path towards a mature and normal sexual attitude begins not at puberty but at early

childhood. He claimed that infantile sexual emotions and desires take many and varied forms, not all of them actually erotic; thumb sucking and other displays of autoeroticism, retention of fasces and sibling rivalry. The years of puberty and adolescence consolidate sexual identity by reviving long buried oedipal attachment, and establishing the dominance of the genitals for the attainment of sexual gratification.

Furthermore, he believes that libido was an important aspect of adolescent development in that "puberty awakens the sexual drives" and an important part of adolescent development is to channel the libido into a healthy sexual relationship. (Thorne & Henley, 2005).

Psychosocial Theory: The lead proponent of this theory was Erick Erickson (1963) who revised Freud's development stages, which is more social and ego – oriented. He viewed human development as a progression of eight psychosocial stages in which the child faces a wide range of human relationship and specific problem to resolve at each stage. This theory is termed psychosocial theory because of the initial strong influence of social circumstances on the development of internal emotional feelings (intra psychic stage) (Oladele, 2004).

In this theory, Erickson developed one of the influential stages related to adolescence called "identity versus role confusion". Boyd and Bee (2009) explain that in Erikson's theory, identity versus role confusion is the stage during which adolescents attain a sense of who they are. He believed that in order to achieve a healthy sexual identity each adolescent has to examine his/her own identity and the roles they occupy. He attributed puberty and sexual changes to adolescents' confusion. In one of his most relevant statements, with regard to analyzing the effectiveness of sex education, Erikson believed that each teenager must achieve an integrated view of himself, including his own patterns of belief, occupational goals and relationship.

With regard to sex education, its development in psychosocial theory would better apply to such programmes that emphasize many different options – comprehensive sex education and

abstinence–only programmes. Notwithstanding, some psychologists believe that abstinence education is the only option that can realistically prevent all consequences related to sexual behaviors. The core message of abstinence education, according to these psychologists of psychosocial school, is to teach young people how to abstain from sexual activities until they are in a committed adult relationship. In essence to teaching benefits of abstaining from sexual activities until marriage, these initiatives focus on development character traits that prepare youngsters for future oriented goals. The strength of this message is that if the adolescent does not have sex, the consequences related to sexuality activity will occur. And also the adolescent will be able to focus on other aspects of development, which will free him from the stressors related to having a sexual relationship at a young age.

Self–Perception Theory: This is an aspect of social psychology theory which believes that adolescent sexuality cannot be understood without the consideration of the psychosocial factors that contribute to the sexual context. Initially, self–concept refers to the picture or image a person has of himself. It also means the sum of what a person believes to be true about him, together with the importance he attaches to those beliefs (Oladele, 2004). The self is made up of the perceptions, attitudes, memories, interest, values, experiences, self-esteem, ideals, goals and ambitions of a particular individual.

Oladele (2004) suggests that the self consist of three components:

a. Perceptual – how a person views himself
b. Conceptual – how a person thinks of himself
c. Attitudinal – A person's attitude towards himself like self–esteem, self reproach values, ideas and convictions.

He further explained that "the self develops out of the organisms' interaction with the environment". This means that people make attributions about their own attitudes, feelings

and behaviour by relying on their observations of external behaviors and the circumstances in which those behaviors occur. For example, it is obvious that adolescent girls receive sexual advances from adolescent boys more than that of the adolescent girls to their male counterparts. This has resulted in the boys always being the initiators. The girls now observe their behaviour and see that they only succumb to these advances only when approached. Even though they were often receptive to the initiation and enjoyed the encounters, their self–perception is that they have little desire and are not considered sexual persons, because they hardly ever think of it on their own and therefore never initiate. This shows that self-perception theory can be used to help understand how interpersonal interactions can influence sexual functioning.

Social Learning Theory: This theory stresses the importance of social and cognitive factors as well as the role of observational models in determining behavior. Lawal (2011) says behavior, according to social learning theory is determined primarily through learning, which takes its place in a social context. The relevance of social learning theory and its application to sexuality education as well as many other areas of health education, including substance abuse prevention and violence prevention could not be overemphasized. Since this theory aims at changing behavior in participants, it is therefore, a good fit for prevention-based sexuality programme for example those that aim to prevent pregnancy by preventing sexual involvement.

Social learning theory is a particularly good measure or medium for pregnancy, sexual transmitted infections and HIV prevention programme because of the following factors.

a. Sexual behaviour is influenced by personal knowledge, skills, attitudes, interpersonal relationships and environmental influences which are all factors addressed in social learning theory.

b. Adolescents receive few, if any, positive models for healthy sexual behavior. Modeling positive and healthy sexually–related behavior to youth is extremely important. Because sexual behaviors often happen in private settings, much of what youth observe modeled behavior about sex and its implications take place on television sets and in movies, popular music and magazines. The majority of this modeled behavior such as early sexual activity, violence combined with sex, no issue of protection or discussions about risk – is counter to what family life educators are trying to teach adolescents.
c. It provides youth with behavioral skills practice. For example, saying "no" to pressure to have sex.
d. Teaching youth/adolescent specific behavioral skills is crucial in an effective prevention programme. Unfortunately, many sexuality programmes overemphasize cognitive learning, and fail to address the behavioral aspects of becoming and staying healthy.

Yorie's Theoretical Framework on Sex Education: Yorie (2011) developed a framework on sex education and opined that the youth (15–24 years) is a stage in the life cycle of a human being which is most vulnerable to the influences of socializing agents. He said social psychologists maintain that the self and personality are social products. Yorie (2011) basing his theory of cognitive development on his experiments with children, asserts that an individual passes through stages of cognitive development as one matures. He maintains that such cognitive development is achieved through interaction with the environment, and that the content of what is learned at each stage of development process depends largely on culture which is a people's way of life.

Adolescence is believed to be the last stage before maturity. According to Yorie (2011), it is at this stage that individuals are able to achieve formal abstract operational thoughts, they can think in terms of theories and hypotheses, they can manipulate concepts as those of mathematics,

and can think about personal goals and even ideal social conditions – a capacity that is often expressed in the idealism of the youth. Thus the characteristics of the youth largely reflects their learning from early childhood and youth socialization processes which they received from socializing agencies, first and foremost of which is the family, and those from the school, the peer group as well as mass/social media. Therefore, a well adjusted, responsible and well educated youth is the goal of any society since the roles they play as adults of the next generation will determine the development of that society.

2.11 Social Theories of HIV and imminent epidemic emergence

Several of the theories of HIV origin attempt to explain the unresolved loose ends described by many scholars and researchers. Most of them seem to accept the established knowledge of the SIV/HIV phylogenetic relationships, and also accept that the bush meat practice was the most likely cause of the initial transfer of the Simian Immunodeficiency Virus (SIV) from chimpanzees to human in the form of HIV. Some of the most common theories which describe how the viral transfer between animals and humans takes place and how SIV became HIV in humans could be explained thus:

The Hunter Theory: Also known as the Bush Meat theory. It is believed to be the most commonly accepted theory of HIV. According to Pascal (1987), the virus SIV, was transferred to humans as a result of chimpanzees being killed and eaten, or their blood getting into cuts or wounds on the hunter. SIV on a few occasions adapted itself within its new human host and become HIV. It is explained that whenever an SIV passed from a chimpanzee to a man, it would have developed in a slightly different form within his body, and thus produced a slightly different strain. Available historical sources also support the view that bush meat hunting has indeed increased the level of HIV due to the necessity to supply meat to the population, and that firearm become more widely available as they were used for widespread hunting.

Iatrogenic Theory: Also referred to as the oral polio vaccine theory. Horowitz, Kyle and Caldwell (2002) propose that medical interventions were responsible for the transmission of the virus to humans, especially through the polio vaccines. The theory centered on the role of parenteral risk such as unsteriled injections, transfusions and smallpox vaccinations. The oral polio vaccine called "Chat" was given to millions of people in the Belgian Congo, Rwanda and Burundi in the late 1950's. Initially, the chat vaccine was cultivated on Kidney cells taken from chimpanzees infected with an SIV in order to reproduce the vaccine. This is the main source of contamination according to this theory which later affected large number of people with HIV. However, this explanation was considered plausible by most scientists of the field like Chitnis, Rawls and Moore (2000) that only macaque monkey kidney cells, which cannot be infected with SIV or HIV were used to make chat. And that another reason is that HIV existed in humans before the vaccine trials were carried out.

Social Change Theory: Also referred to as colonialism theory. First proposed by Beatrice and Sharp (2006) that "the epidemic emergence of HIV most likely reflects changes in population structure and behavior in Africa during the 20th century and perhaps medical interventions that provide the opportunity for rapid human to human spread of the virus". They traced the history of social changes to colonial rule in Africa which was particularly harsh, and the locals were forced into labour camps where sanitation was poor and food was scarce. The European colonial powers established cities, towns and other colonial stations. As a result, a largely masculine labour force was hastily recruited to work in fluvial and sea ports, railways, other infrastructures and in plantations. This seriously disrupted traditional tribal values, and favoured sexual promiscuity. In the nascent cities women felt relatively liberated from rural tribal rules as many remained unmarried or divorced during long periods of husband absence.

This was accompanied by unprecedented increase in people's movement from rural to city areas (Beatrice & Sharp, 2006).

Chitnis (2003) proposes that HIV may have emerged epidemically as a result of the harsh conditions, forced labour, displacement, unsafe injections and vaccination practices associated with colonialism particularly in French Equatorial Africa. He also stressed that these parenteral risks and the prostitution associated with forced labour camps could have caused serial transmission or serial passage of HIV between humans.

In essence, Chitnis (2003) cited that extreme stress conditions associated with forced labour could depress the immune system of workers, therefore prolonging the acute primary infection period of someone newly infected by the disease, thus increasing the odds of both adaptation of the virus to humans, and further transmissions and development of AIDS as a disease.

Social Capital Theory: This theory according to Brieger et al (2007) emphasize that social life networks, norms, and trust enable people to act together more effectively to pursue shared objectives. Therefore according to this theory, HIV programme that promote social cohesion, social inclusion and strengthening community's ability to intervene on its own behalf (similar to collective efficacy) will be more likely to succeed than one that bypasses these principles.

Social capital theory is operational based on two milieus:

i. Socio cultural which is the degree of interaction within members of a social circle.

ii. Institutional Infrastructure which emphasizes the presence of community organizations and their ability to act on behalf of the community.

Social Cognitive Theory: Also known by its earlier version of Social Learning Theory and developed by one its prominent architects, Albert Bandura. Lawal (2011) states that social and cognitive factors as well as behaviour, play important roles in learning. The theory argues

that providing information is not sufficient alone to change behaviour, rather sustained behaviour change requires the skill to engage in the behaviour and the ability to use these consistently and under difficult circumstances. It posits that behaviour change requires four components:

a. An information component to increase awareness and knowledge of health risk, and to convince people that they can change their behavior – educating people about HIV and showing them they can change.
b. A component to develop the self-control and risk reduction skills needed to prevent the behavior – showing people what their risk are, and how they can change them.
c. A component to increase an individual's self-efficacy in implementing these behaviors – specific effort to show people how to participate in HIV awareness campaigns, how to negotiate safer sex, how to say "No".
d. A component to build social support for the individual as he/she engages in the new behavior support groups.

Social Network Theory: This theory looks at social behavior not as an individual phenomenon but through relationships, and appreciates that HIV risk behavior, unlike many other health behaviours, usually directly involves two people (King, 2009). With respect to sexual relationships, social network focuses on both the impact of selective i.e. how different people choose with whom they mix, and the variations in partnership patterns i.e. length of partnership and overlap. The intricacy of relations and of communications within the individuals or couple (the smallest unit of the social network) is critical to understanding HIV transmission in this model. The scope and character of one's broader social network is a key to comprehending individual risk behavior. That is to say social norms are best understood at the level of social networks.

King (2009) in his popular essay "Sexual Behavior Change for HIV: Where have theories taken us?" suggests that HIV programme using the social network theory to guide them often investigate:

a. The composition of important social network in a community.

b. The attitudes of the social networks towards safer sex.

c. Weather the social network provides the necessary support to change behavior?

d. And whether particular people with the social network are at particularly high risk and may put many others at risk?

2.12 Empirical studies on Teachers' attitude towards Sex Education and HIV/AIDS

The proliferation of HIV/AIDS related illnesses and sex education research underscores the importance of understanding HIV/AIDS and its impact on the performance and wellbeing of individuals (adolescents). Sex education and HIV/AIDS have attached considerable research interest especially in understanding teachers' attitude towards imparting the appropriate knowledge and awareness against HIV. In recent years several interested individuals and researchers have focused attention on these two most essential topics in contemporary times, with emphasis on adolescent sexual behaviour.

Halpern-Felsher and Reznik (2009) reported a study on teachers' attitude in Washington that both comprehensive sex education and abstinence-only programmes could delay the onset of sexual activity in students. The study was carried among male and female teachers of Grade 9 students. However, only comprehensive sex education has been found to be effective in protecting adolescents from sexually transmitted illnesses with 87 percent of teachers having positive attitude. She added that in contrast, scientifically sound studies of abstinence-only programmes show an unintended consequence of unprotected sex at first intercourse and during later sexual activity. In this way, most of the teachers believe that abstinence only programmes

only increased the risk of these adolescent for sexually transmitted illnesses including HIV/AIDS.

According to a study conducted by Dawson et al (2009) on teachers in Massachusetts High schools using attitude scale showed that 99 percent of female respondents and 100 percent of male respondents agreed or strongly agreed that they would support including AIDS education in the curriculum in a school where they teach. Likewise 88 percent female and 73 percent male respondents agreed and strongly agreed that it is the regular classroom teachers' responsibility to teach AIDS education. The teachers, according to the study also show a positive attitude that more time should be spent in teaching students about HIV/AIDS and would comfortably answer student's questions about HIV/AIDS.

Fentahun, Assefa and Ambaw (2011) say Ethiopia is a nation of young people with 65 percent being under 25 years and with profound reproductive health needs such sexual coercion, sexually transmitted diseases and HIV/AIDS. They conducted a research to assess teachers' attitude towards school sex education in some parts of Merawi town in the metropolitan schools. A cross sectional quantitative and qualitative study was carried out among 94 teachers with a view of finding out about human sexual anatomy, sexual reproduction, emotional pleasures, dating and relationships and sexually transmitted diseases including HIV/AIDS. According to the findings, all study participants have favourable attitude towards importance of school sex education. The respondents also agreed that the content of school sex education should include abstinence-only and abstinence-plus based on mental maturity of the learners. The finding also revealed that teacher teaching experiences and field of studies have supportive ideas about the starting of school sex education.

Banouna (2012) conducted a research so as to understand the attitude and position of teachers in Kingdom of Saudi Arabia on offering sex education to adolescents and how important such education would be to the educational system. Data was from cities of Riyadh and Jeddah through 400 questionnaires and interviews with teachers at the upper secondary schools level. The necessity of this research according to Banouna was prompted by adolescents' curiosity to know more about sexuality and asking numerous questions to understand and explore themselves. And that since we are in an age of globalization, scientific openness, problems related to sexuality and HIV/AIDS, one is prompted to address the issue within a religious context that respects the biological nature of individuals. The finding of her study however reveals that teachers, irrespective of their gender and nature of school maintain an 87 percent favourable response towards educating students about sexuality.

According to SIECUS (2002) in a study among teachers attitude on teaching sexuality education in high and junior schools showed that 93 percent of teachers surveyed supported sexuality education in high schools and 84 percent supported it in junior high schools. In fact, 88 percent of parents of junior high school students and 80 percent of parents of high school students believe that sex education in school makes it easier for them to talk to their adolescents about sex. Also, the study showed 92 percent of adolescents reported that they want both to talk to their parents about sex and to have comprehensive in–school sex education.

2.13 Summary and Uniqueness

In conclusion, this chapter captures both theoretical and empirical studies, as well as conceptual framework. Several theoretical and empirical data were reviewed on the emergence and factors that necessitated the issue of sex education and HIV campaigns. In countries such as Thailand, the United States of America, the Britain etc sex education has been in their school

system for several decades. However, in Africa it is still perceived with mixed feelings as it fails to accommodate the cultural values and religious belief of the people.

The chapter also reviewed the dimensions of the HIV/AIDS virus and its devastating effect on adolescents and youth aged 15-49 years. There was also the review of the causes of resistance to sex education and HIV/AIDS campaign in schools as it did not reflect the aspirations and wishes of the people. This resistance was by moralists of all shades and from both the Islamic and Christian Faiths as they argue that sex education will only deepen immoral acts into the mind of the youth.

The uniqueness of this research work cannot be overemphasized. It tries to domesticate the issue of sex education to suit the cultural norms and values of the people. And to capture the religious belief of the society as it carries the war against immoral acts especially through the internet on explicit sexual contents, so that the youth and adolescents-in-school will have control over the mind and the body. Moreover, it opens the way for new dimensions in the area of research by facing headlong trending social issues within and without the school environment in order to secure the behavior and attitude of the students.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the procedures adopted for the study. It involves the research design appropriate for the study. So also the description of the population and sample; the sampling technique; the instrument for data collection; validation of data collection instrument in terms of its validity and reliability, procedures for data collection, as well as data analysis procedure.

3.2 Research Design

A research design is a plan through which the researcher systematically and in a controlled form collects data for research (Kolo, 2003). It involves developing a plan or structure for an investigation and a means of conducting a study that reduces bias distortion.

The descriptive survey design was used for this study. It is a design which specifies the nature of a given phenomena. This specification can either be simple or complicated (Bello, 2010). The reason for choosing this type of design was that the study investigated teachers' perception of the relevance of sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone. It is therefore based on factual information and opinion of respondents that the descriptive survey design was used.

3.3 Population and Sample

3.3.1 Population of the Study

The population of this study comprised of all public senior secondary school teachers of Nassarawa Education Zone, Kano State (Nassarawa and Fagge). According to statistical report from the Department of Planning and Statistics of Kano State Senior Secondary Schools Management Board (2011), the total number of teaching staff in Nassarawa Zone is One

thousand, Three hundred and Ninety Five teachers distributed in Thirty Seven public senior secondary schools. Out of the population Eight hundred and Forty Eight teachers are male while Five hundred and Forty Seven are female. Most of the teachers are Hausa and practice the Islamic faith distributed within the schools in the zone.

TABLE: 3.3.1 Summary of Population

Zone	**Male Teachers**	**Female Teachers**	**TOTAL**
NASSARAWA	848	547	1395

Source: *Kano State Senior Secondary Schools Management Board (2011)*

3.3.2 Sample Size

A sample is precisely that part of a population which a researcher intends to use for the purpose of research. According to Bichi (2004), a sample is that portion of the population being studied drawn through a definite procedure. A sample intended for the purpose of research must however possess the characteristics of the population. A sample of Two Hundred and Ninety Seven (297) teachers was used for this study according to Krejcie and Morgan's (1971) table of sample specification. Out of this sample, One Hundred and Eighty One (181) or Sixty point Eight percent (60.8%) were drawn from the male population while One Hundred and Sixteen (116) or Thirty Nine point Two (39.2%)were from the female population. The samples were drawn from Thirty Three schools of the zone as it is a metropolitan zone and access to transport to the schools is relatively easy (See Appendix 1 for the Krejcie and Morgan (1971) table).

The subjects were drawn from the two genders in the Zone.

Table 3.3.2 Summary of sample by schools

S/N	SCHOOL	N	S	REMARK
1	GSS SUNTULMA	39	8	NASSARAWA
2	GSS TARAUNI	63	13	“
3	GGSS DANGANA	50	7	“
4	GGISS GWAGWARWA	37	8	“
5	GSIS DAKATA	38	8	“
6	GGSS DAKATA	32	7	“
7	GGASS KAWAJI	41	9	“
8	GASS GIGINYU	36	8	“
9	GGSS GIGINYU	40	9	“
10	GGSS HOTORO SOUTH	29	6	“
11	GSS HOTORO	32	7	“
12	GSS KAWAJI	65	14	“
13	GGASS GAMA	36	8	“
14	GGASS T/MURTALA	34	7	“
15	GSS KAURA GOJE	42	9	“
16	GGASS YANKABA	40	10	“
17	GGASS HOTORO NORTH	40	9	“
18	GGSS MAGWAN	29	6	“
19	GOVT COLLEGE, KANO	67	15	FAGGE
20	GSS MAIKWATASHI	30	6	“
21	GGSS MAIKWATASHI	36	8	“
22	GSS STADIUM	52	11	“
23	GGSS DABO	42	9	“
24	GSCS AIRPORT ROAD	63	13	“
25	GSS KWAKWACHI	40	8	“
26	GGASS MASALLACI	58	12	“
27	GASS KWACHIRI	27	6	“
28	GGASS T/BOJUWA	53	11	“
29	GSS MVA KUKA	43	10	“
30	ADSS BUKAVU(BOYS	44	9	“
31	GGSS MARYAM ABACHA	43	10	“
32	ADSS BUKAVU(GIRLS)	31	7	“
33	GSS GOGAU	43	9	“
	TOTAL	**1,395**	**297**	

Source: *Nassarawa Education Zonal Office (2013)*

3.3.3 Sampling Technique

Sampling Technique is a fundamental concept in the conduct of research. Every research work is conducted by means of sample, on the basis of which generalizations applicable to the population from which the sample was obtained are reached.

The Proportionate Sampling Technique (stratified sampling method) was used in this study. According to Asika (2005), this sampling procedure is relatively superior to the random sampling or systematic sampling procedures because it employs extra method of representativeness as a basis for further sampling of the entire population or sample. The method was used to draw the sample from the population and also determine the proportion for each gender. Each subject from the sample was selected randomly.

Therefore, based on this technique, sample distribution for the study is given in the table below:

Table 3.3.3 Sample Selection by Gender

Zone	Gender	Population	Sample	Percentage
Nassarawa	Male	848	181	60.8%
	Female	547	116	39.2%
	Total	1395	297	100%

Source: Fieldwork 2013

3.4 Data Collection Instrument

The instrument used for this study is the self-developed questionnaire. A questionnaire is a research instrument that consists of a set of questions on a specific subject under investigation to which the participants in the study are expected to respond (Bello, 2010). The questionnaire was termed Secondary School Teachers' Attitude Questionnaire (SSTAQ) aimed at eliciting the response of teachers to sex education and HIV/AIDS awareness campaigns in Senior Secondary Schools. Respondents were requested to respond honestly to all the questions by making a tick (√) on the appropriate column.

The instrument contains two parts. The first part deals with personal information of the respondent/teacher. The second part contains a series of questions/statements for the respondents to answer accordingly. The statements were in the form of a five-point Likert scale i.e. Strongly agree, Agree, Undecided, Disagree, and Strongly disagree.

However, the scoring procedure was done by the researcher as he intends to find out teachers' attitudinal level using the five-point Likert scale format. The instrument consisted of fifteen items; the highest score any respondent can obtain is 75 i.e. 5 x 15 while the lowest score would be 15 i.e. 1 x 15; the range is 60 i.e. 75-15; the midpoint of range is 30. The cut-off point is therefore 75 - 30 i.e. the maximum score minus the midpoint of the range or 15 + 30 i.e. the minimum score plus midpoint of the range which is 45. Therefore, teachers who obtained 45-75 have positive attitudinal level while those below 45 have negative attitude towards sex education and HIV/AIDS.

3.5 Validation of Data Collection Instrument

An instrument for data collection is valid when it is appropriate for the intended population and purpose of the study. The instrument must possess the relevant content that suit the target population as regards language use, simplicity, clarity and age of respondents.

3.5.1 Validity of the Instrument

The relevance of the instrument was determined by my supervisor and some two experts at the School of Education FCE, Kano through face and content validation in the appropriateness of the items in relation to the study. They were to ascertain the relevance of the items in terms of language appropriateness, clarity and expression in relation to what is intended to be measured.

3.5.2 Reliability of the Instrument

The test-re-test procedure was employed to determine the reliability of the instrument. A pilot study was conducted to a sample of thirty (30) samples not initially part of the study on two

different occasions but with seven days (7) interval using the same instrument. The results were correlated using the Pearson Product Moment Correlation Coefficient to determine the r value and a reliability coefficient of 0.65 was obtained showing that the instrument was statistically reliable and appropriate for the study.

The Appendix 2 table is as follows:

Table 3.5.2 Summary of Reliability Test

X	Y	X^2	Y^2	XY	
1708	1660	98760	93476	95524	r =0.65

Source: Fieldwork 2014

3.6 Data Collection Procedure

The procedure for data collection in this study was through administering the research instrument by the researcher himself. This was after presenting an introductory letter to Kano State Senior Secondary Schools Board and Nassarawa Education Zonal office where data about population of schools and teachers was obtained. The researcher presented himself and his research assistants to the schools through an introductory letter to the principals from the zonal office as strong warning was given to Principals and their gate keepers on visitors to their schools due to the current security threats. However, on the process of retrieving the instruments only Two hundred and Eighty Eight or Ninety Six point Nine percent (96.9%) were retrieved after several efforts as some teachers appeared to be uncooperative with the researcher and his assistants as it took a period of two weeks to administer and retrieve the instruments. The researcher however persevered and opted to continue with his analysis as the mortality rate would not hinder his findings.

3.7 Data Analysis Procedure

The procedure for data analysis in this research work was done using the t-test statistical tool. The hypotheses were tested using the t-test because the variables involved testing significant difference between two group means on two variables quantified under interval scaling.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the summary of data collected from the field, analysis of results, summary of findings as well as discussions on the findings. The sample drawn from the population intended for the study was senior secondary school teachers in Nassarawa Education Zone. Out of the Two hundred and Ninety Seven samples initially intended for the research only Two hundred and Eighty Eight were retrieved from the respondents while the remaining Nine were considered as mortality rate and hence cannot affect the result of the study. A researcher developed instrument tagged Secondary School Teachers' Attitude Questionnaire (SSTAQ) was used to collect data from the respondents. All three hypotheses were analysed using the t-test at 0.05 level of significance.

4.2 Presentation and Analysis of Data

Three research questions were earlier stated in Chapter One of this study with three corresponding hypotheses. The data collected was based on three variables i.e. perception, gender and years of teaching experience of teachers. The hypotheses were tested and the result of findings presented. Underneath are the results found from data collected with the instrument used in the process of research.

Research Question One

What is the attitude of teachers in boys' and girls' secondary schools to sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone?

Table 4.2.1 Teachers' Attitude by School type

Attitude	Teachers in boys' schools		Teachers in girls' schools	
Positive (45-75)	117	80.14%	108	76.1%
Negative (15-44)	29	19.86%	34	23.9%
Total	146	100%	142	100%

Source: Fieldwork 2014

Table 4.2.1 shows that teachers in both boys' and girls' schools have positive attitude as regards sex education and HIV/AIDS in secondary schools in Nassarawa Education Zone. However, teachers in boys' schools have a more positive attitude than their counterparts in girls' schools.

Research Question Two

Is there any gender difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone?

Table 4.2.2 Teachers' Attitude by Gender

Attitude	Male Teachers		Female Teachers	
Positive	141	81%	907	8.9%
Negative	33	19%	24	21.1%
Total	174	100%	114	100%

Source: Fieldwork 2014

Table 4.2.2 table shows a summary of teachers' attitude by gender to sex education and HIV/AIDS awareness in Nassarawa Education Zone. It shows that male teachers are higher with 81% compared to female teachers with 78.9%.

Research Question Three

Is there any significant difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone based on teaching experience?

Table 4.2.3 Teachers' Attitude by Teaching Experience

Attitude	2 Years below		2 Years above	
Positive	67	77%	170	84.6%
Negative	20	23%	31	15.4%
Total	87	100%	201	100%

Source: Fieldwork 2014

Table 4.2.3 shows summary of teachers' attitude in view of their teaching experience. Teachers with more than two years teaching exposure have positive attitude than those with less than two years as regards sex education and HIV/AIDS campaign in senior secondary schools in Nassarawa Education Zone.

The analysis of the three hypotheses under this research work was done using the t-test statistical tool under the Statistical Package for Social Sciences (SPSS).

Hypothesis One: There is no significant difference in teachers' attitude to sex education and HIV/AIDS in boys' and girls' senior secondary schools in Nassarawa Education Zone.

Table 4.3.1 Ho1 t-test summary

Attitude	N	Mean	Sd	t-cal	df	P=
Teachers in boys' schools	146	51.1507	7.60158	0.269	286	0.699
Teachers in girls' schools	142	51.3944	7.74776			

Source: Fieldwork 2014

The above table showed that there is no significant difference between teachers in boys' and girls' senior secondary schools towards sex education on HIV/AIDS awareness campaign in Naasarawa Education Zone. The P-value of 0.699 is greater than 0.05 level of significance using 286 as degree of freedom. Therefore, the null hypothesis is retained in favour of the alternate one.

Hypothesis Two: There is no significant gender difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone.

Table 4.3.2 Ho2 t-test Summary

Gender	N	Mean	Sd	t-cal	df	P=
Male	174	51.7816	7.82456	1.400	286	0.712
Female	114	50.4912	7.37161			

Source: Fieldwork 2014

The above table indicated that the P-value of 0.712 is greater than 0.05 level of significance using 286 as degree of freedom. The decision therefore is that there is no significant gender difference in teachers' attitude towards sex education on HIV/AIDS awareness campaign in Nassarawa Education Zone. Therefore, the null hypothesis is retained in favour of the alternate one.

Hypothesis Three: There is no significant difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone based on teaching experience.

Table 4.3.3 Ho3 t-test Summary

Teaching Experience	N	Mean	Sd	t-cal	df	P=
Two years and below	87	52.2874	7.43015	1.484	286	0.296
Two years and above	201	50.8308	7.73636			

Source: Fieldwork 2014

The above table showed that the P-value of 0.296 is greater than 0.05 level of significance using 286 as degree of freedom. The conclusion therefore is that there is no significant difference in teachers' attitude to sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone based on teaching experience. The null hypothesis is hereby retained in favour of the alternate one.

4.3 Summary of Findings

In summary, the followings are the research findings:

1. There is no significant difference in teachers' attitude towards sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone in both boys' and girls' schools.
2. There is no significant gender difference in teachers' attitude towards sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone.
3. There is no significant difference in teachers' attitude towards sex education and HIV/AIDS awareness campaign in Nassarawa Education Zone based on teaching experience.

4.4 Discussions on Findings

The study, despite being on a sensitive and controversial issue of sex education and HIV/AIDS awareness campaign, was intended to find out teachers' attitude towards sex education on HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone. According to the calculated t-test values in all the hypotheses, it could be revealed that there is no significant difference in teachers' attitude in view of school type, gender and teaching experience as the calculated values were less than the P-values at 0.05 leval of significance. This can be seen from the fact that the issue of awareness on HIV/AIDS has a global acceptance and that every effort to do away with the deadly scourge is embraced. However, sex education is still being perceived with mixed feelings (see Appendix II for the Secondary Schools Teachers Attitude Questionnaire frequency table).

This is in agreement to a research conducted by SIECUS (2010) that majority of teachers have positive attitude towards sex education programme to be taught in schools, ranging from

89-95% approval in high schools and 84% support in junior schools as has been found across all demographic categories of teachers.

Also according to Dawson et al (2009) teachers show positive attitude towards sex education in Massachusetts high school that it is the regular classroom teachers responsibility to teach sex education. The finding also agreed with the view of Cecil and Jagdish (2008) that teacher-student communication regarding sexual education will not only promote healthy frankness about sex and STIs, but also create negative attitude regarding pregnancy in teenagers and decrease the likelihood of the youth having unprotected sexual activities.

The finding in hypothesis two showed that there is no significant gender difference in teachers' attitude towards sex education on HIV/AIDS campaign. This finding was confirmed in Dawson et al (2009) that the attitudes of male and female teachers support the inclusion of AIDS education in the curriculum of the schools they teach. So also the view of Fentahun, Assefa and Ambaw (2011) supported this finding where 94 teachers were selected as sample from schools in Merawi irrespective of gender and all participants have favourable attitude towards sex education.

The finding in hypothesis three showed that significant difference does not exist in teachers' attitude towards sex education on HIV /AIDS awareness campaign based on teaching experience. This confirmed the view of Fentahun, Assefa and Ambaw (2011) that there was no significant difference in teachers teaching experiences and field of studies about the starting of school sex education. It also confirmed a research conducted by Banouna (2012) that there was no significant difference in teachers' attitude from the cities of Riyadh and Jeddah on offering sex education to adolescents. The finding shows 87% of teachers have favourable response towards educating students about sexuality.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This is the introductory aspect of this chapter. The chapter depicts summary of the study, conclusion raised from the study, and recommendations from the research and for further research.

5.2 Summary

This research work as has been earlier stated, was seeking to find out teachers' attitude to sex education and HIV/AIDS awareness campaign in senior secondary schools in Nassarawa Education Zone.

The opening chapter of the research work serves as the introduction part of the research report. The background to the study was presented highlighting the trends and issues in sex education. Statement of the problem was also captured as to the emerging risk factors associated with adolescence stage and sexual behavior. Specific objectives guiding the study, research questions, and hypotheses were presented. The significance to how the findings of the study could be important to teachers, ministries of the education, researchers, and stake holders in the field of education were outlined. It also presented the scope and delimitation of the study.

The chapter two i.e. review of related literature discusses both theoretical and conceptual framework, as well as empirical studies in the area of research. It also covers wide literature on HIV/AIDS such as transmission and spread, symptoms, manifestations and stages, screening and diagnoses, as well as prevention and treatment of HIV/AIDS. Lastly, the chapter reviews some perspectives on resistance to sex education.

Furthermore, chapter three deals with methodology. It highlights the procedure for the study and design adopted in the study. The population for the research work was identified; sample size was determined and presented; the technique for determining sample size was also outlined. The instrument for data collection was described and validation of the instrument in terms of its validity and reliability, procedure for data collection and analysis was also presented.

Chapter four deals with presentation and analysis of data of the research report. The data collected were summarized into tables with each table covering one research variable as has been contained in the research question. It also outlines the analysis and interpretation of hypotheses using t-test for all the hypotheses.

5.3 Conclusion

According to the findings of the study, it can be concluded that teachers' attitude towards sex education on HIV/AIDS awareness campaign does not differ. This signifies that teachers, irrespective of their gender and school type have positive attitude to sex education and HIV/AIDS awareness campaign in secondary schools.

It can also be concluded that teachers' attitude towards sex education on HIV/AIDS awareness campaign based on gender in senior secondary school in Nassarawa Education Zone, Kano State. This shows that both male and female teachers have positive attitude towards sex education and HIV/AIDS campaign to students.

And lastly, it can be concluded that based on teaching experience, teachers' attitude towards sex education on HIV/AIDS awareness campaign remain positive. This means that both new and old serving teachers have same attitudinal level as regards teaching sex education and HIV/AIDS campaign.

5.4 Recommendations

Based on the findings from this study, recommendations from the study and for further study are hereby suggested.

5.4.1 Recommendations from the study

a. Educationists especially psychologists should be involved in building good behavior and positive attitudes in students.

b. Since there is no gender difference in teachers attitudinal level, teachers should be strengthened with more competent skills to impart the knowledge of sex education and HIV/AIDS awareness campaign in schools.

c. Only those programmes whose efficacy and effectiveness have been well established through moral standards should be supported for wide spread implementation through teachers experience.

5.4.2 Recommendations for further study

Some of the recommendations for further research include:

a. The study on HIV/AIDS/sex education should be extended to junior secondary school teachers.

b. The scope of the study should be expanded to cover other educational zones especially in the rural areas.

c. A study should be conducted to cover private secondary schools in the State.

d. Parents and students attitude should be captured in future researches.

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APPENDIX 1

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	327
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	180	2600	335
70	59	380	191	2800	333
75	63	400	196	3000	341
80	66	420	201	5300	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	382
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Culled from Krejcie and Morgan (1971)
N = Population size
S = Sample size

APPENDIX II

SECONDARY SCHOOL TEACHERS' ATTITUDE QUESTIONNAIRE FREQUENCY TABLE

S/N	ITEMS	SA	A	U	D	SD
1	Teaching sex education and HIV/AIDS awareness campaigns in secondary schools will improve students awareness about sex and HIV	106	72	06	58	46
2	The attitude of students towards sex today is exactly the same with that of the olden day students	30	08	20	140	90
3	The easy access to explicit contents in the internet exposes students/adolescents to reckless sexual behavior and risk of HIV	120	112	22	34	-
4	Pubertal changes during adolescence stage significantly influence students attitude to sexual activities	86	122	26	34	20
5	Non discussion of abstinence programmes and HIV/AIDS in schools often make students passive about sexually transmitted diseases	82	98	38	52	18
6	The curriculum for sex education and HIV/AIDS awareness programmes must conform with religious and cultural values	134	84	16	40	14
7	Every teacher in the school can be assigned to teach sexuality education and HIV awareness	36	38	24	110	80
8	Teachers may exhibit inappropriate behavior to students during sex education classes	75	77	49	49	38
9	HIV/AIDS is a threat to students' academic, social, and emotional activities	86	118	26	40	18
10	Fear of intimidation and sexual delinquency among students cause resistance to sexuality and HIV education programmes in schools	82	101	31	40	34
11	Students have little or no knowledge about the risk of HIV/AIDS	56	94	22	90	26
12	The advocacy and campaign programmes of Non-governmental organizations (NGOs) and donor agencies such as UNAIDS, AHIP, UNICEF etc can help students develop positive attitude towards sexuality and HIV/AIDS education	104	116	22	24	22
13	Parents should be involved in the teaching of sexuality and HIV/AIDS programmes in schools	72	87	22	64	43
14	Sexuality education may affect students moral behavior	102	75	20	57	34
15	HIV/AIDS awareness programme may be beneficial to students health status	119	106	16	33	14

Source: Fieldwork 2014