SCHOOL–BASED HIV/AIDS RISK-REDUCTION INTERVENTION PROGRAMMES AMONG ADOLESCENTS IN ORLU SENATORIAL ZONE, IMO STATE, NIGERIA

BY

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DEDICATION

This work is dedicated with love to my husband, children and my beloved mother, in whom I have found a treasure without measure; and all adolescents in need of accurate information on HIV/AIDS and risk reduction behaviours.

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CERTIFICATION

I certify that this study was carried out by **Martina Chikaodinaka EZEAMA** in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria.

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ABSTRACT

Human Immuno-deficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) constitute a major public health challenge in Imo State and adolescents are increasingly becoming vulnerable. It is necessary to target adolescents with risk-reduction educational interventions because they can be effectively reached through schools. However, effective interventions for doing this are limited in Nigeria. This study was, therefore, conducted to investigate the relative effectiveness of Class-room Instruction (CI) and Drama (DR) on HIV/AIDS knowledge, attitudes, perception and risk-reduction practices among adolescents in Orlu Senatorial Zone.

A quasi-experimental design was adopted which involved 165 students from three randomly selected co-educational secondary schools assigned to two experimental groups (CI and DR) and control. Baseline data were collected using a semi-structured questionnaire which included 29-point knowledge, 9-point attitude, 15-point Self-Efficacy (SE) scales and 27-point risk reduction practices scales. Knowledge scores <15 and ≥15 were classified as poor and good respectively; attitude scores <5 and ≥5 were respectively categorised as negative and positive; SE scores <7 and ≥7 were grouped as low and high respectively ,while risk reduction practices scores <13 and ≥13 were categorised as positive and negative respectively. Results were used to design interventions that were implemented for 8 weeks. Mid-term and follow-up evaluations were conducted using the same instrument. Data were analysed using descriptive statistics, t-test and ANOVA at p=0.05.

Ages of the respondents in CI, DR and control groups were 13.4 ± 1.2, 13.9 ± 1.5 and 13.8 ± 1.2 years respectively. Knowledge scores on HIV/AIDS at baseline were 20.5±2.7, 20.4 ± 2.6 and 21.1 ± 2.7 for CI, DR and Control groups respectively. These increased to 22.7 ± 2.7, 22.61.8 and 21.2 ± 0.3 at mid-term among CI, DR and control, respectively. At follow-up, scores among CI and DR increased to 23.9 ± 1.8 and 24.5 ± 1.4 respectively while the control's score dropped to 20.0 ± 2.8. At baseline, respondents' with high SE among CI, DR and control were 87.3%, 81.8% and 70.9% respectively; at mid-term scores were 96.2%, 96.3%, 85.5% while scores at follow-up were 98.1%, 100.0%, 84.9% respectively. Attitude

scores among CI, DR and control groups at baseline were 5.3 ± 1.4, 4.9 ± 1.5 and 5.3 ± 1.0 respectively. At mid-term attitude scores were 5.1 ± 1.2, 5.0 ± 0.9 and 4.7 ± 1.5 for CI, DR and control respectively while scores at follow-up were 5.3 ± 1.2, 5.6 ± 0.7 and 4.5 ± 1.2. HIV risk reduction practice among the respondents in CI, DR and control at baseline were 18.5±4.6, 19.8 ± 5.8 and 17.0 ± 4.8, at mid-term scores were 23.8 ± 3.4, 23.6 ± 3.4 and 17.7 ± 5.1, while scores at follow-up were 24.9 ± 2.6, 26.7 ± 1.1 and 17.0 ± 5.3 respectively, indicating significant increase among the intervention arms than control. Prevalence rates of non-sharing skin-piercing objects at baseline among CI (38.2%), DR (40.0%) and control (23.6%) were low compared to 94.2% and 96.3% at mid-term and 90.4% and 94.3% at follow-up for CI and DR, respectively.

Drama intervention yielded more positive outcomes in knowledge gained, self-efficacy and risk-reduction practices than classroom instruction. Drama is therefore recommended for use as school-based HIV/AIDS risk-reduction intervention in Orlu Senatorial Zone, Imo State, Nigeria.

Keywords: HIV/AIDS School-based intervention, Risk-reduction practices, Attitude change, Adolescents in school.

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CHAPTER ONE

INTRODUCTION

Background

Acquired Immune-Deficiency Syndrome (AIDS) is a disease of the human immune system caused by the Human Immune-Deficiency Virus (HIV). This condition progressively reduces the effectiveness of the immune system and leaves individuals susceptible to opportunistic infections and tumours (Ijioma, Iwu, Onoja and Egeruo, 2011). Ever since the discovery of HIV and AIDS, the virus and its infection have been reported from all parts of the globe, reaching an epidemic level in a few years, in several countries, especially in sub-Saharan Africa. The first case of HIV in Nigeria was reported in 1986, in a sexually active 13-year-old girl and soon afterward, HIV infection was identified among commercial sex workers (CSW), in Lagos and Enugu. Because of the widespread patronage of this group of people, cases of HIV infection were occasionally reported from various parts of the country (Entonu and Agwale, 2007; Federal Ministry of Health [FMOH], 2004), and have been growing steadily.

The 2010 national HIV prevalence amongst pregnant women attending antenatal clinics in Nigeria was 4.1%. The study found that HIV prevalence was highest in NC Zone (7.5%) followed by SS Zone (6.5%). The NW Zone had the lowest prevalence of 2.1% (Figure 1.1). The HIV prevalence by location in all the zones (urban/rural difference) showed a similar pattern with South-South and North-Central Zones having the highest urban prevalence (8.2% each). North-West had the lowest urban prevalence of 2.7%. With respect to rural prevalence, the South-South had the highest (4.2%) while South-West had the lowest (1.3%) (Figure 1.2) (FMOH, 2010). The prevalence of HIV/AIDS infection is still on the vast side. Many people are yet to know their HIV status despite the fact that awareness of HIV/AIDS epidemic had been made and diagnosis in most hospitals is free. Overall prevalence rate of HIV/AIDS infection among persons aged 0-24 years in Imo state from April 2007 to Sept, 2009 was 5.6, 5.6 and 7.4 respectively (Ijioma, Kalu, Nwachukwu and Nwachukwu, 2010).

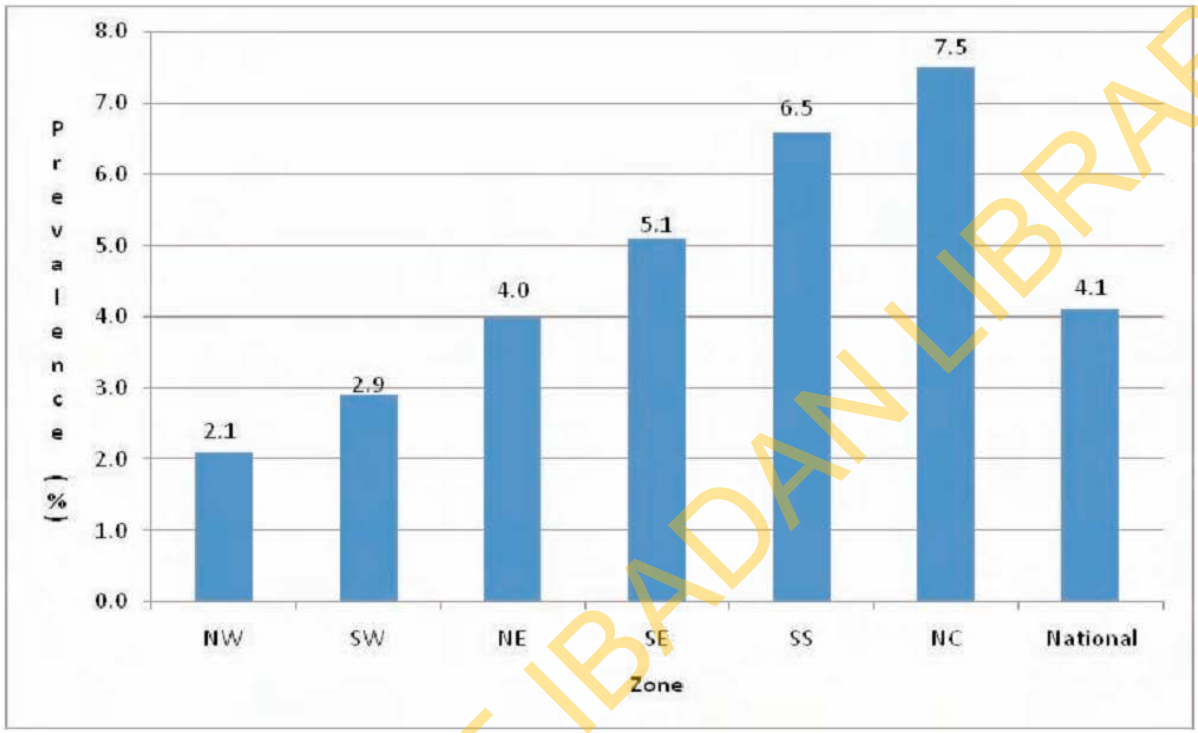


Figure 1.1: HIV Prevalence by Zone (HSS 2010)

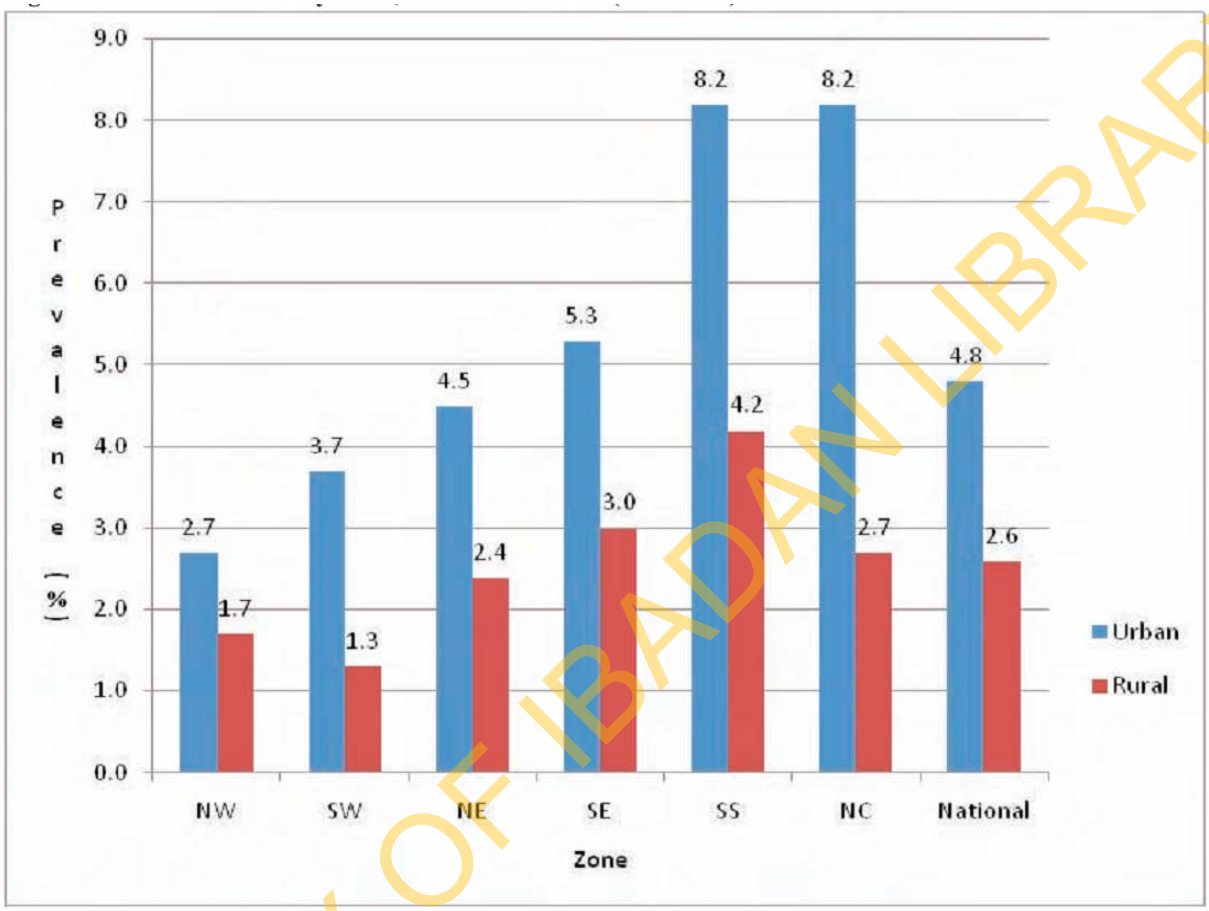


Figure 1.2: HIV Prevalence by Zone, Urban and Rural (HSS 2010)

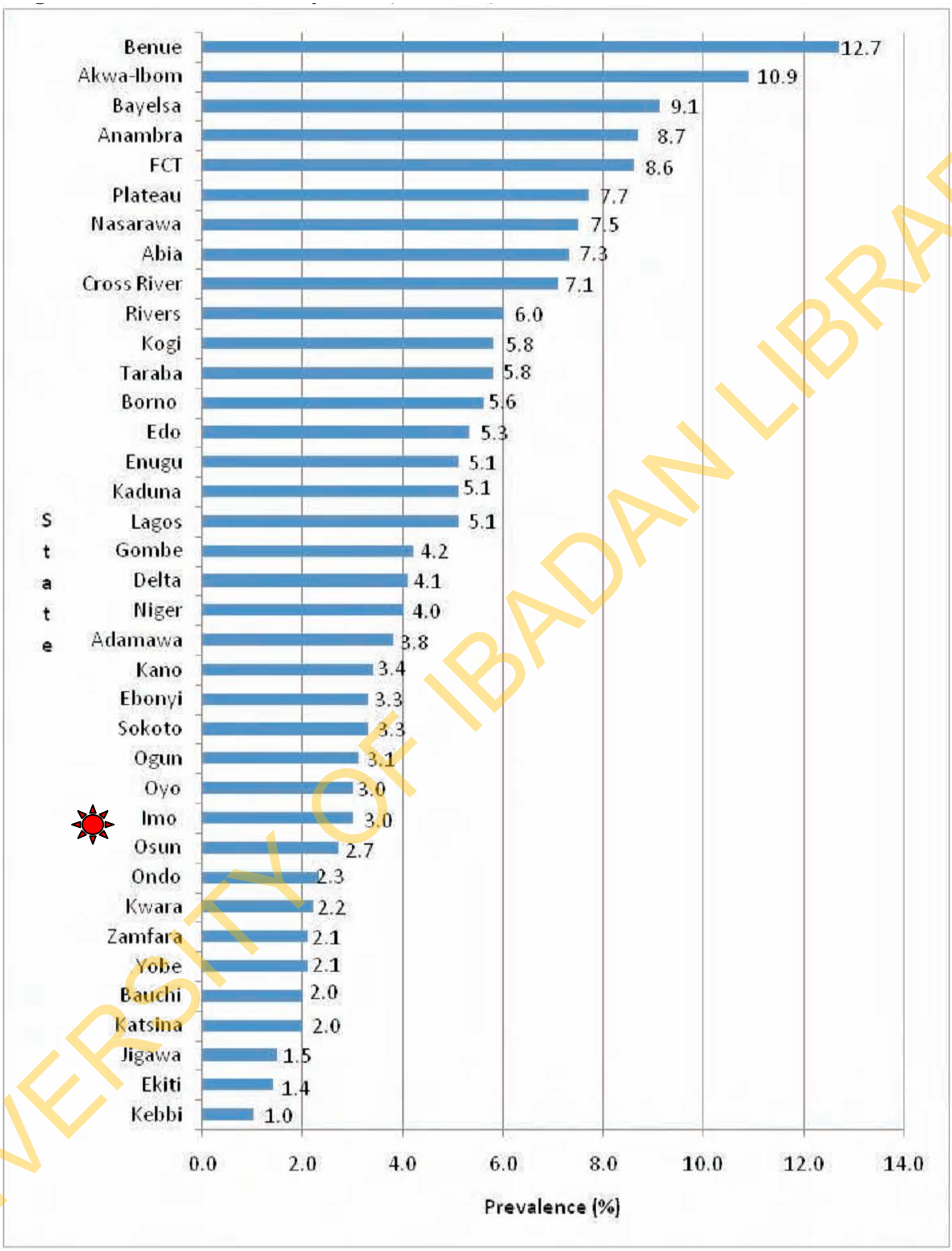


Figure 1.3: HIV Prevalence by State (HSS 2010)

Key: Study site

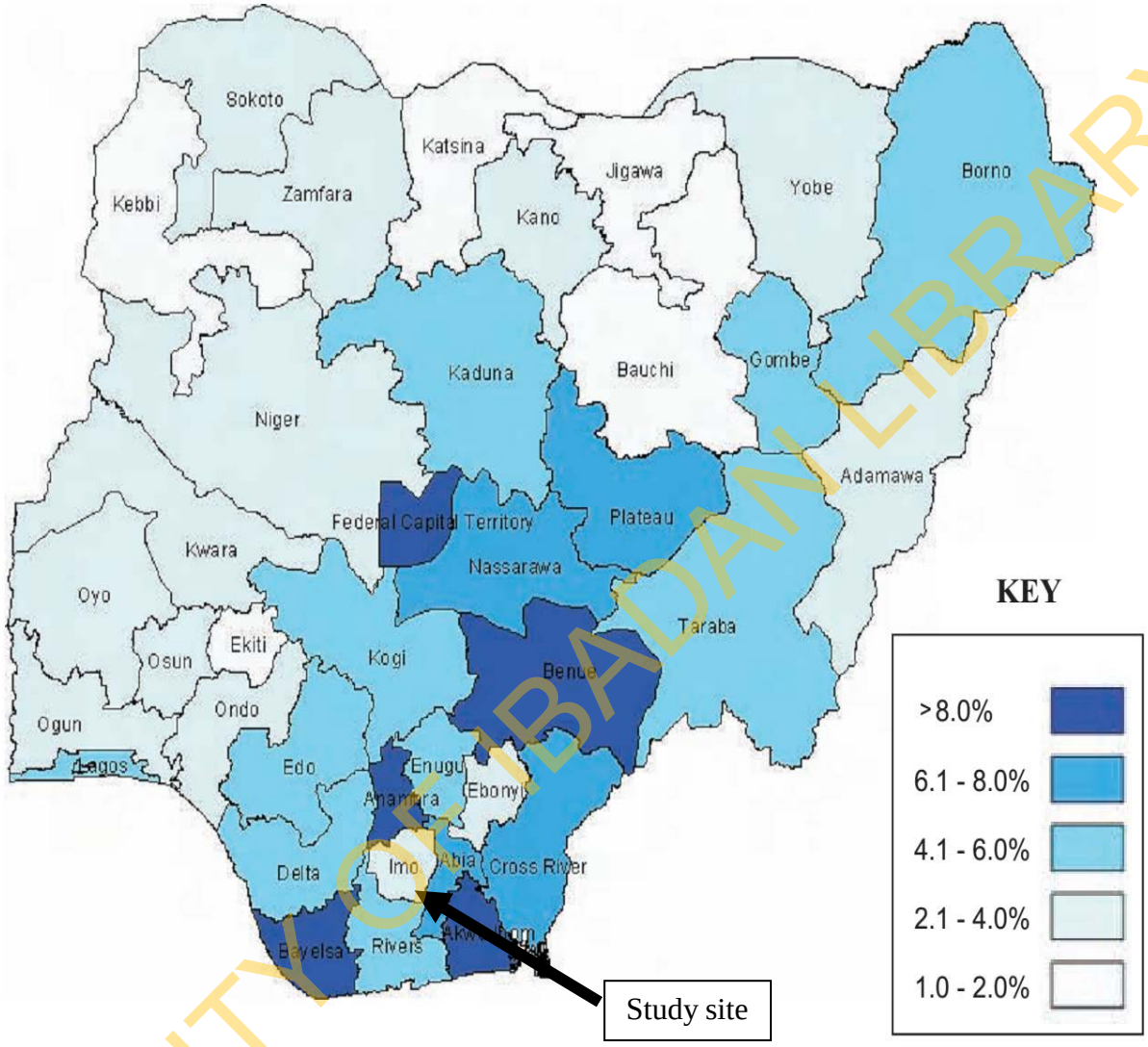


Figure 1.4: Geographical distribution of HIV Prevalence by States (HSS 2010)

HIV and AIDS remains the greatest sustainable human development challenge for Nigeria as its impact has increasingly become more complex affecting all economic sections. Today, almost every Nigerian is either affected or infected by this pandemic. The impact ranges from declining life expectancy which negatively affects economic productivity, education, health, agriculture and human capital development. This is particularly felt where the epidemic is spreading along fault lines of social development as evidenced by the social and

structural drives of the epidemic such as; poverty, gender inequality, migration and transactional sex. In the absence of pharmacological, immunological and medical interventions, HIV and AIDS education in schools can become effective (Kahari, 2013).

Human Immuno-deficiency Virus and Acquired Immune Deficiency Syndrome (HIV and AIDS) remains important global public health issue that has aroused the need for targeted approach for reducing infectivity of the at-risk population most especially the adolescents. The AIDS epidemic in Nigeria is generalised, with infection primarily occurring through heterosexual transmission (Mitsunaga, Powel, Heard and Larsen, 2005). Some parts of the country are worse affected than others, but no state or community is free from its scourge. It affects people from all ways of life, both the young and the old, although the prevalence rate may differ. Out of over 42 million People Living with HIV/AIDS (PLWAS), approximately 3.6 million reside in Nigeria, and it is home to one out of every 11 persons with the virus worldwide (Ijioma, Iwu, Onoja and Egeruo, 2011), representing the second more affected country in terms of absolute number. It is the leading course of morbidity and mortality in sub-Saharan Africa.

The adolescent period has been described as a period of storm and stress, it is a transition period from childhood to adulthood, characterised by hormonal changes, sexual growth, emotional, cognitive and psychological development, adolescents at this stage could be predisposed to contracting HIV/AIDS. The adolescent constitute 20% of the world population with majority (85%) of them in developing countries. Recent studies indicate that most adolescents engage in risky sexual behaviour, which may predispose them to the HIV/AIDS pandemic, sexually transmitted diseases, early pregnancy and dropout from school (Henrietta, 2013). Keating (2006) reported that, HIV/AIDS is a serious concern in Nigeria today because the estimated annual deaths as a result of the disease have increased from 50,000 in 1999 to over 350,000 in 2004. Also Chikonzo (2005) reported that sub-Saharan Africa is the region most affected by HIV/AIDS. An estimated 25.4 million people in the region are living with the disease, also approximately 3.1 million new infections occurred in 2004. It was reported that by 2005 the epidemic would have claimed an estimated 2.5 million lives, with more than 2 million children under the age of fifteen living with HIV

and more than 12 million children orphaned by AIDS (Virtual Institute for Higher Education in Africa [VIHEA], 2004).

Adolescence is the period when many people begin to explore their sexuality; as a result, access to sexual and reproductive health information and services becomes increasingly important. Despite the well-known need for protection from HIV infections and other reproductive health risks, their age and their social and economic status limit adolescent access to information and services in many settings. Adolescence is typically a period of experimentation, new experiences, and vulnerability. Some adolescents may experiment with injecting drugs, sexuality, and sexual orientation (men may begin to have unprotected sex with other men), and some are exploited sexually. Millions of adolescents who are becoming sexually active live in countries with a high burden of HIV. Adolescence provides a window of opportunity in which to intervene early. Comprehensive data are essential to shaping accurate HIV-related messages and services before risky behaviours are formed and become entrenched (Idele, Gillespie, Porth, Suzuki, Mahy, Kasedde and Luo, 2014).

Exposure to human immunodeficiency virus (HIV) can be a consequence of many of the risk-taking behaviours that occur among adolescents. Efforts to improve adolescent health through access to diagnosis, treatment, and prevention education must take into account the developmental level of the patient, as well as social and psychological variables (United Nations Population Fund [UNFPA], 2010). Data from several parts of Nigeria point to an increasing sexual activity among single adolescents of both sexes, with progressive decrease in the age of sexual initiation, and poor contraceptive use. The disease is known to affect all age groups, but generally speaking, youths between the ages of 20 and 29 are more affected (Orji and Siam, 2005; Ijioma, Iwu, Onoja and Egeruo, 2011). It has been reported that this sub-group of the population is the most susceptible to new infections especially in sub-Sahara Africa where the greatest burden of the epidemics lies (Paul-Ebholemhin, Poolbalan and Teijlingen, 2008). Currently, the 82% of the estimated 2.1 million adolescents aged 10-19 years living with HIV were in sub-Sahara Africa and majority of these 58% were females (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2012). The World Health Organization (WHO) equally reported a mortality of an average 36 million people since the

first cases were reported in 1981 and about 1.6 million people died of HIV and AIDS in 2012. Sub-Saharan Africa remains severely affected as the region account for 69% of the total number of people living with HIV. One out of every twenty adults is said to be living with the disease in this region (UNAIDS, 2012). Current estimates shows that half of all new cases of HIV infection occur in people under the age of 25 years, and that 80% of AIDS cases worldwide are in those age between 15 and 44 years, three-quarters of whom live in sub-Sahara Africa (UNAID, 2012).

According to the 2006 population and housing census, adolescents aged 10- 24 constitute 31.7% of the total population of the country, with nearly equal proportion of males and females (50.1% males versus 49.9% females). The population of males tends to be higher in the younger age groups. Whereas the population of males is 52.7% in the 10-14 age group, in the 20-24 age group the female population is 53.6% while the male population is 46.4% (Figure 1.1) (National Population Commission [NPC], 2006). This proportion has major demographic, social and economic implications, including strain on the national economy, pressure on the provision of social services and demand for employment, as well as high dependency. Yet adolescents and youth are the nation's future, an important resource whose capacities need to be tapped for development. These are ages of promise and opportunity, challenges and risks. The risk is related to the development of a sense of identity, including adoption of value systems. Because many of the decisions people make in adolescence and youth influence them for the rest of their lives, it is imperative that people in these age groups be supported to make responsible life choices (Ministry of Planning & National Development and Health Ministry of Health, 2003).

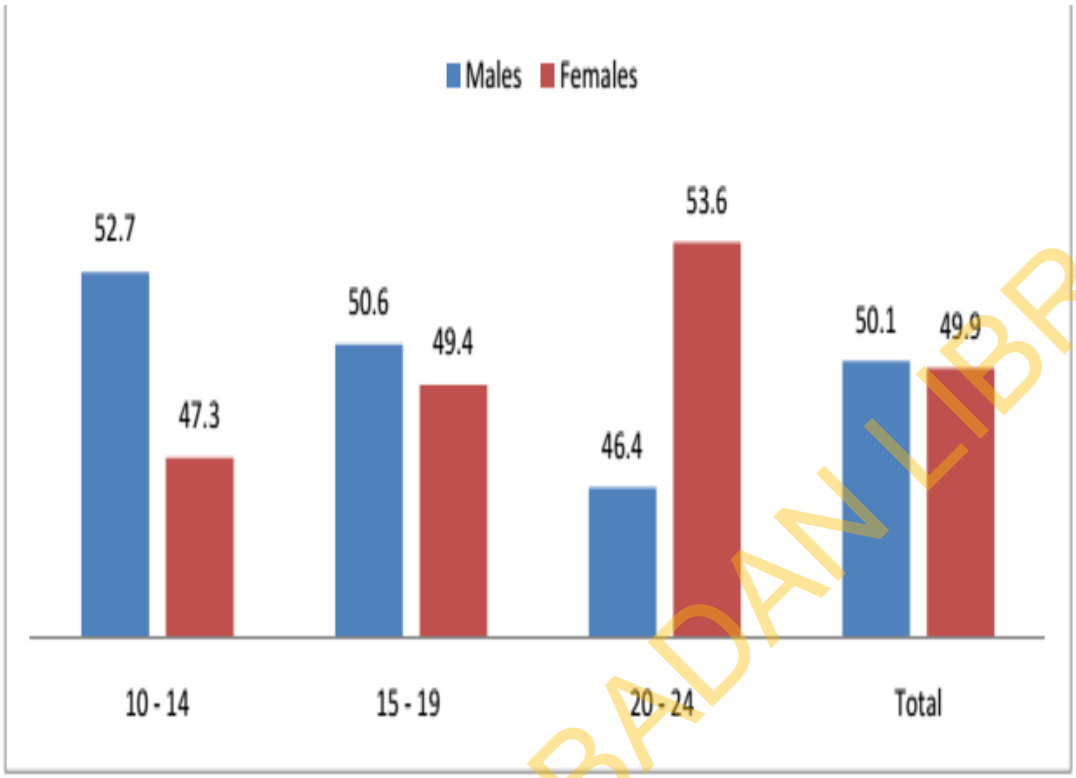


Figure 1.5: Adolescents population by sex (NPC, 2006)

(Source: The main source of data for the analysis is National Population Commission Abuja: 2006 Population and Housing Census of the Federal Republic of Nigeria Priority Tables, Volume 1, 2009).

According to 2010 report on National HIV Sero-prevalence Sentinel Survey among pregnant Women attending Antenatal Clinics in Nigeria (FMOH, 2010), the patterns of HIV prevalence among various age-groups in the North Central, North East, North West and South East Zones were similar to the national pattern, which showed a rise from 15-19 years age-group to a peak at either 25-29 years age-group (North East Zone) or 30-34 years age-group (North Central, North West and South East Zones) and then declined with increasing age-group (Figure 1.6).

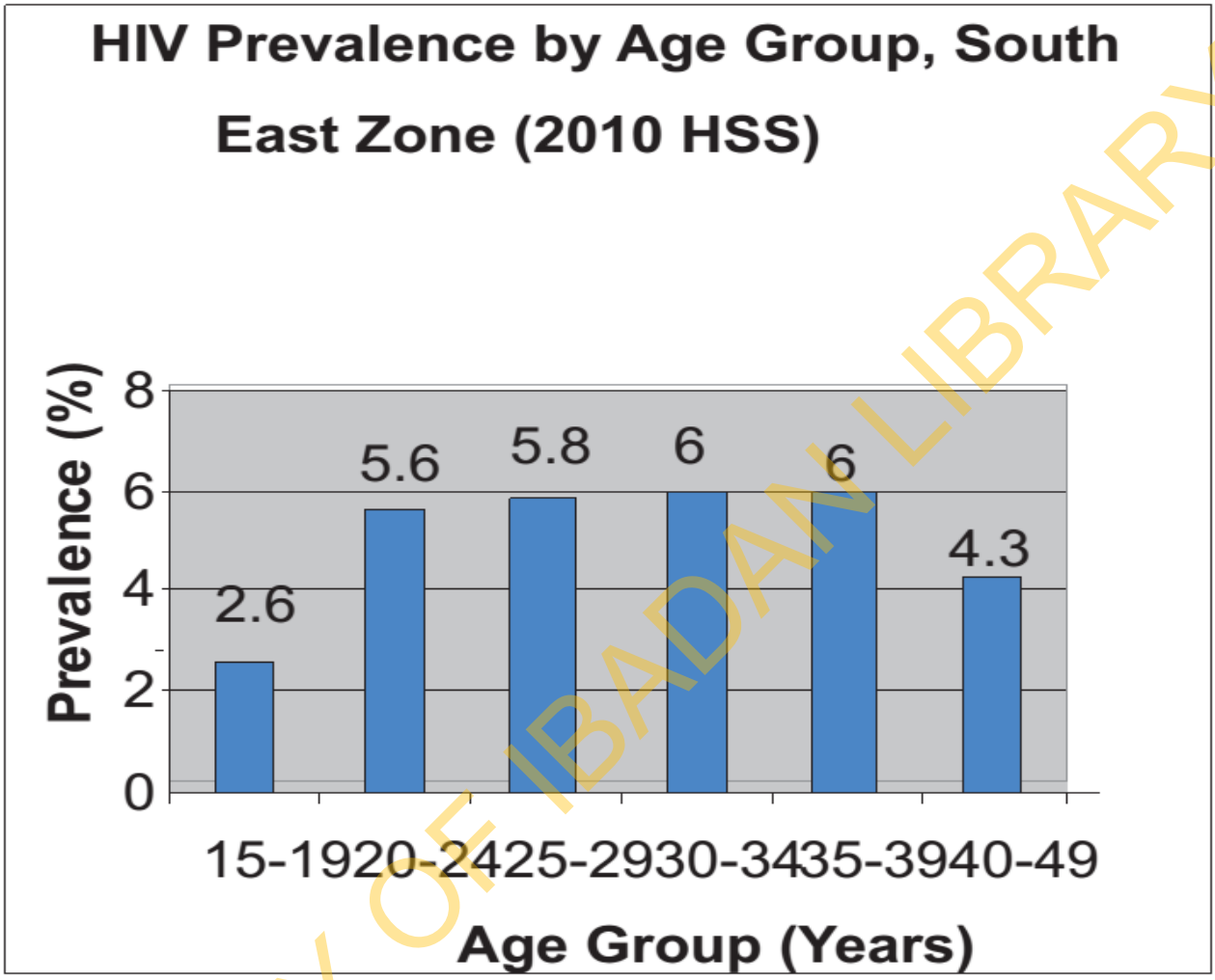


Figure 1.6: HIV Prevalence by Age Group, South East Zone (2010 HSS)

Imo State was created in 1976 by the defunct military administration led by late Major General Murtala Mohammed. The State, although not quite rich, is bordered by neighbouring oil rich River State and the commercial Anambra State. The students, especially the girls, often migrate into these states where the rich class can prey on them. This situation is capable of increasing the tendency for risk-taking behaviour, thus, emphasizing the need for knowledge about HIV/AIDS and desirable sources of information of HIV/AIDS as a strategy for prevention. According to the Federal Ministry of Health (2010), HIV prevalence among pregnant women attending antenatal clinic in 2010 in Imo State was 3.0. HIV prevalence

among primary school and secondary school students were 3.5% and 7.8% respectively (Imo State Action Committee on AIDS [SACA], 2010). The situation is exacerbated by restless, inquisitive and risk-taking nature of adolescents and youths in this part of the country.

Therefore, with the high proportion of HIV infected individual in sub-Saharan Africa and Nigeria in particular, it becomes imperative that interventions aimed at reducing HIV/AIDS-related risk-taking behaviours among adolescents be designed and tested with a view to proffering solutions towards getting the adolescents who are leaders of tomorrow more acquainted with ways of preventing HIV/AIDS pandemic. It becomes imperative therefore, that investigation be carried out in order to determine the effectiveness of two school-based interventions (drama and classroom instruction) on reducing risk-taking behaviour.

Statement of problem

In 2010, HIV prevalence in Imo State was 3.0 and prevalence among adolescents aged 15 – 24 years were 2.2% and 3.4% in urban and rural areas respectively (FMOH, 2010). National prevalence rate among primary school pupils was 6.2% while prevalence among secondary school and tertiary institution was 6.1% and 4.9 % respectively (Federal Ministry of Education [FME], 2011). In 1999, Orlu zone had a prevalence rate of 10.6% higher than the national average (FMOH 1999); HIV prevalence among primary school pupils and secondary school students were 3.5% and 7.8 % respectively (Imo SACA, 2010).

The increasing rate of HIV infection among adolescents is of concern; unfortunately HIV risk-reduction educational programmes are not adequate in most of these secondary schools in Orlu senatorial zone, Imo State. Therefore, giving the high risk group the priority for preventive intervention earlier in life is an important strategy (Singhal and Rogers, 2003). This is important because if the epidemic in adolescents is not controlled and they are infected with the virus, adolescents living with HIV are more likely to die from AIDS than any other age group. The adolescent HIV epidemic presents complex interactions of multiple determinants including individual risky behaviour and vulnerabilities related to biologic, economic, social, and cultural factors (Kasedde, Kapogiannis, McClure and Luo, 2014; Idele, Gillespie, Porth, Suzuki, Mahy, Kasedde and Luo, 2014). The need to target the young

adolescents is important but interventions addressing the effectiveness strategies needed to communicate HIV/AIDS risk reduction practices are scarce in Nigeria. Moreover, previous interventions have been directed to adolescents in urban secondary schools

Adolescents and young adults are a critical segment of any human society being the direct link between its future (children) and past (older adults) since they are for the most part preoccupied with preparation for the full assumption of adult roles and responsibilities. This age group, 10-24 year-olds, becomes even more important in Nigeria where it constitutes a large proportion of the total population and already makes significant social and economic contributions to household and societal viability. With about 3 million Nigerians presently living with HIV, young people are clearly disproportionately affected by the epidemic in absolute terms even with the decline in overall HIV prevalence from a high of 5.8% in 2001 to about 3.4% in 2012 (Ahonsi, 2014). The major drivers or factors driving this epidemic among adolescents especially, in-school adolescents are poor knowledge, low risk perception, stigma, negative attitude to HIV testing, sexual and physical abuse, multiple sexual partners, peer pressure, economic needs and transactional sex among others.

The World Bank (2000) succinctly described the problem of the impact of HIV in the educational sector:

> *'HIV/AIDS is wiping out the development gains of a generation. The high prevalence countries cannot expect to gain any development momentum until the epidemic is brought under control'*

According to Olasehinde-Williams, Onasanya, Adegbija, Matanmi and Adegbija (2009), 'there is a growing awareness of the magnitude of the impact of HIV/AIDS on the various segments of the population most at risk.' However, intervention programs for in-school youths have met with several challenges such as lack of political will, funds, motivation, facilities and sustainability issues. Ikeako, Onoh, Ezegwui and Ezeonu (2014) reported that over 60% of patients presented at Nigerian hospitals with abortion complications are adolescent girls, abortion complications account for 72% of all deaths among young girls

under the age of 19 years and 50% of the deaths in Nigeria's maternal mortality rate are adolescent girls, due to illegal abortion. Of 127 pregnant schoolgirls, 52% were expelled from school. 20% were too ashamed to return, 15% would not return because their parents refused to pay tuition, and 8% were forced to marry. One of these alternatives is to give knowledge about sexuality to young people so that they can take responsibility for their actions. Allowing them to live and act in sexual ignorance is destructive to them and society. The problem of AIDS affects all aspects of the life of young people. They bear the greatest brunt of the disease and its spread is most rapid among them. They are therefore at the centre of the epidemic.' (Ohiri-Aniche and Odukoya, 2004).

Justification

Increasing rate of HIV infection among adolescents predicted poor knowledge of the disease thus indicating inadequate understanding of the far reaching consequences. Studies about HIV/AIDS risk reduction are not available in the State; therefore, strategies needed to communicate HIV/AIDS are scarce. Majority of the studies conducted in the past focused on adolescents in the urban secondary schools. Schools have been identified as good avenues for HIV and AIDS prevention interventions (World Health Organization [WHO], 2007; Schenker and Nyirenda, 2002). Schools provide an excellent way of reaching large numbers of adolescents with HIV/AIDs information at the same time. Thus, initiating HIV/AIDS prevention interventions/programmes in secondary schools prior to sexual debut will be most effective strategy in reducing rates of STIs (Fonner, Armstrong, Kennedy, O'Reilly and Sweat, 2014). Apart from occasional HIV/AIDS messages from health workers and teachers, possible effective interventions such as classroom-based teaching and drama have not been tested. Testing such interventions would demonstrate the more effective of the two interventions and the most effective intervention can be effectively integrated into the existing school HIV/AIDS preventive programmes by the Ministries of Education and Health. Opportunities for enhancing local ownership of interventions are ensured (Gallant and Maticka-Tyndale, 2004; Stover et al, 2002).

In providing answers to the following questions, knowledge will also be added to existing body of knowledge:

1. To what extent can the health promotion interventions affect HIV/AIDS knowledge and risk-behaviours in rural school in Imo State?
2. Which of the two educational interventions (classroom instruction vs. drama) is more effective in increasing HIV/AIDS knowledge and reducing risk behaviours in the school setting in relation with
    a. HIV/AIDS prevention knowledge
    b. Self-efficacy skills
    c. increased abstinence
    d. reduce HIV risk behaviours (e.g. unprotected sex, sharing non-sterile instruments (clippers, razors, scissors, knives) among adolescents in secondary schools in Orlu, Imo state, Nigeria?

According to Akinboye in Ebong and Ebong (2013), the fact that adolescents are particularly vulnerable to HIV is an important reason for focusing efforts on HIV/AIDS transmission, prevention and care efforts on those under age 25 years (Ebong and Ebong, 2013). The risk of HIV transmission is not only linked to the fact that young people are having sex, but also to their lack of the knowledge and the skills they might use to protect themselves, lack of creative ideas, lack of innovation to turn their ideas to usable forms of sexual health, are terrible deficiencies that make the youngsters very much vulnerable (Akinboye, 2004). Young people are more vulnerable to sexually-transmitted HIV and HIV infection than adults, as a result of drug usage. Young people of ages 15 to 24 years old account for half of all new HIV infections worldwide (Ebong and Ebong, 2013).

Interventions targeting young adolescents who are more at risk of HIV infection early have been identified as an important strategy for reducing the spread of HIV and AIDS among this population (Emeka-Nwabunnia, Ibeh and Ogbulie, 2014; Singal and Rogers, 2003). In sub-Saharan Africa where young people now constitute the main pool sustaining the epidemic, adolescents and youth specific interventions aimed at preventing HIV/AIDS are of importance. It is worthy of note that younger adolescents is a crucial period for prompt intervention before risky behaviours commence (Ajuwon, 2000; Ajuwon, 2005). One innovative approach in the prevention of HIV infection is the use of school-based

interventions – classroom instruction and use of drama – to inculcate right values and virtues in this population. Adolescents need to be equipped with the right knowledge, attitudes, values and skills that will help them in making healthy lifestyle choices which is capable of protecting them against HIV infections. Adolescent experiment and explore what they are exposed to in the environment. Introducing school-based HIV/AIDS prevention interventions early in life will delay onset of sexual activities.

The most common place for young people to learn about HIV and AIDS is at school because of the capacity and universality of schools. Kahari (2013) indicated that various studies including Abner, Carlyle, Roberto and Zimmerman, (2007), Kyrychenko, Kohler and Sathiakumar (2006) have shown how school-based HIV and AIDS programmes are effective in reducing risk taking behaviours because of the benefits of interactive platforms. Young people are at a high risk of becoming infected with HIV and AIDS and it is vital that they are educated about the pandemic before they are exposed to situations that put them at risk. Schools play a major role in shaping the attitudes, opinions and behaviours of young people and are an ideal environment for teaching the social as well as the biological aspects of HIV and AIDS. Discussing HIV and AIDS in schools is also important as noted by Kim, Kols, Nyakauru, Marangwanda and Chibatamoto (2001).

The increased usage of drama as an edutainment strategy can be applied in school setting as a school-based HIV/AIDS prevention intervention. Thus, using school-based HIV/AIDS prevention interventions may be a feasible approach to reducing the spread of HIV and AIDS among young adolescents. Despite growing enthusiasm, the evidence demonstrating the impact of using school-based HIV/AIDS prevention interventions however remains scarce. In Nigeria and Imo State in particular, effects of school-based HIV/AIDS risk behaviour reduction interventions among adolescents have not been adequately investigated. This study therefore, provides the opportunity of investigating the potentials of using school-based HIV/AIDS risk behaviour reduction interventions among adolescents in Orlu Senatorial zone, Imo State.

Targeting the right population such as young adolescents who are at risk of HIV infection at the right time such as making high risk groups the priority for preventive interventions at the earliest stage of the epidemic has been identified as an important strategy for prevalence reduction in HIV/AIDS (Emeka-Nwabunnia, Ibeh and Ogbulie, 2014). The findings from the research will not only have important implications for adolescent health outcomes, services and policy in Imo State and in Nigeria in general, but also greatly contribute to the use of pedagogy skills in health with the potential to scale-up these interventions.

Currently, little information is known about adolescent awareness, preventive skills and safe behaviour competencies about HIV Infections and AIDS disease from this part of the country. Moreover, little information exists on what school-based intervention is more effective in relating to risk reduction among young adolescents. In an attempt to document the extent of the problem, this study was undertaken.

Research Questions

This study provided answers to the following key questions emerging from the identified problem statement:

1. What is the level of knowledge of respondents about HIV/AIDS risk-taking behaviour reduction?
2. What are the attitudinal dispositions of respondents towards HIV/AIDS?
3. What are the HIV/AIDS risk-taking behaviours of respondents?
4. Which intervention (classroom instruction and drama- based communication) will have a better effect on HIV/AIDS risk-taking behaviour reduction among respondents?

Broad Objective

The study sought to investigate the effects of classroom instruction and drama-based communication interventions on HIV and AIDS knowledge and risk-taking behaviours reduction among in-school adolescents in Orlu Senatorial Zone, Imo State, Nigeria.

Specific objectives

The specific objectives guiding this study are to:

1. Assess levels of HIV/AIDS knowledge and risk behaviours among in -school adolescents in Orlu Senatorial Imo State
2. Assess the attitudinal disposition of respondents towards HIV/AIDS
3. Determine the HIV/AIDS risk-taking behaviours of respondents
4. Design and implement two sets of educational interventions (Classroom instruction vs. Drama) to address HIV/AIDS knowledge, attitudes and risk behaviour reduction practice among the adolescents
5. Evaluate the outcomes of the two interventions on (a) HIV/AIDS knowledge of causation, transmission and prevention (b) attitudes (c) Self efficacy and (d) Risk behaviours reduction practices

Hypotheses

The null hypotheses tested included the following:

H_0 1 There is no significant difference between the Experimental group 1 (E1), Experimental group 2 (E2) and the Control at baseline and follow-up in respect to

a. Knowledge about HIV and AIDS disease
b. Attitudinal disposition towards HIV/AIDS and risk of infection
c. Risk behaviours reduction among adolescents in secondary schools in Orlu zone, Imo State, Nigeria.

Delimitation

The study, analysis and interpretation of results were delimited to adolescents in public secondary school located in the rural communities in Orlu Senatorial Zone. The study can only be generalized to secondary school adolescents in similar rural communities.

Glossary

AIDS	Acquired Immune Deficiency Syndrome
ARV	Anti-Retroviral Therapy
AYP	At risk Young Persons
Baseline Study	Data collected as part of the project identification phases to understand the existing project context and characteristics of the (target) population before the project is set up. The data gathered can then be compared with a study of the same characteristics carried out later to see what has changed
Concept	
DFID	British Government Department for International Development
EFFECT	Expected outcome of any intervention
Effectiveness	The extent to which the programme or project objectives were achieved taking into account their relative importance
EVAYP	Especially vulnerable adolescents and young people comprising those engaging in high risk sex not using a condom, at last high risk sex and lacking comprehensive knowledge of HIV
FLHE	Family Life and HIV/AIDS Education
FMOH	Federal Ministry of Health
Framework	A way of organizing information so that it can be more easily understood and interpreted
HCT	HIV Counselling and Testing
HEAP	HIV/AIDS Emergency Action Plan
HIV	Human Immune Deficiency virus
HSS	HIV Sero-Sentinel Survey
IMPACT	The changes Intentional and unintentional, Positive or negative a project brings about beyond its original purpose (e.g. improvement on HIV risk reduction behaviour)
LBS/LS	Life Building Skills/Life Skills – skills needed to protect against contracting HIV and STIS (refusal skill, negotiation skills etc.)

MARAYP	The most at risk young persons
NACA	National Agency for the Control of AIDS
NACA	National Action Committee on AIDS
NARHS	National AIDS and Reproductive Health Survey
NASCA	National AIDS/STDs Control Programme
NDHS	National Demographic and Health Survey
PCA	Presidential Council on AIDS
PLWHA	People living with HIV and AIDS
PMTCT	Prevention of mother to child transmission
SACA	State Action Committee on AIDS
STDs	Sexual Transmitted Diseases
STIs	Sexual Transmitted Infections
Theoretical Models as	Models that aid in the description of health related behaviour as well in planning to change the behaviour
UNAIDS	Joint United National Programme on HIV/AIDS
WAYI	West African Youth Initiative
WHO	World Health Organisation

Operational Definition of Terms

School Based Programmes	-	These are programmes domiciled in the school for effective communication of preventable health problems.
Risk Behaviours		Behaviour that can predispose adolescents to contracting HIV and others health problems.
Adolescence	-	A period of transition between childhood and adulthood (10-19 years) but for the purpose of this study is age between 10-14 years.
Adolescent	-	Young secondary school children in Orlu Senatorial Zone aged 10-14 years.
Youth	-	Youth refers to individual whose age are from 15 to 24 years.
Teenagers	-	Young persons whose age ranges from 13 to 19 years
Risk Reduction Behaviour	-	These are behaviours that will not predispose adolescents to contracting HIV.
Effect	-	The expected outcome of HIV/AIDS risk- reduction intervention on the selected secondary school adolescents' knowledge and risk- reduction behaviour
Classroom Instruction	-	Classroom teaching of adolescents of the content of a subject within a specific period.
Drama	-	A teaching method that allows the learner time to see, listen, feel and think when learning a particular subject

CHAPTER TWO

LITERATURE REVIEW

Adolescence and Adolescent Development

Adolescents as defined by the World Health Organisation (WHO) refer to people between the ages of 10 and 19 years, while youths refer to persons between the age range of 15 and 24 years, and the term young people is used to cover both groups (10-24 years) (Federal Ministry of Health [FMOH], 2011). Young people form a significant population group in terms of demographic parameter as they constitute about a fifth of the human population globally and are rapidly increasing in terms of absolute number. Young people are also a unique population in terms of characteristics and needs and they face unique challenges as a result of their level of development and the societal situation. There are an estimated 1.2 billion adolescents globally. Adolescents aged 10–19 years represent between 14% of the population in Eastern Europe and Central Asia and close to 25% in sub-Saharan Africa (UNICEF, 2011). One of the most important commitments a country can make for future economic, social and political progress and stability is to address the health and development needs of its young people. In Nigeria, there has been a growing recognition of the challenge of young people's health issues and need to address this challenge. As evidence from various local and national surveys have shown, young people in Nigeria face the challenges of early sexual initiation, early marriage, and unsafe sexual practices, among others, with the consequences of increasing rate of unwanted pregnancies, unsafe abortions, and sexually transmitted infections (STIs), including HIV and AIDS.

Adolescence, is a critical period of life because it represents a time of both vulnerability and potential. Adolescence is a time of significant physical, psychological, social, and emotional growth in a child's life. Healthy transition through this period is greatly influenced by the support provided from family, friends, schools, and the community (Viner, Ozer, Denny et al., 2012). As countries deliberate on plans to strengthen and sustain development gains in the medium to long-term, clearly, adolescent health, education, protection, and development should be central to the discussions if countries are to have the basic potential in skilled and

productive human capital required to realize these goals. Adolescents will act in the roles for which today's investments have prepared them, including leadership in the areas of education and health, community, technology, trade, security, justice, and government (Kasedde, Kapogiannis, McClure and Luo, 2014).

Four primary growth tasks of adolescence (physical, social and emotional, cognitive, and moral) are analysed as they are intertwined with parents, emotionality, and risk-taking behaviours. Although the tasks of adolescence are sufficiently distinct to warrant consideration of each factor independently, they are in a steady state of flux and constantly affect one another. For example, physical growth of certain brain regions during the teenage period influences shifts in emotional, cognitive, and social perspectives and abilities. Correspondingly, development of certain cognitive abilities may shift social ties and patterns of emotional regulation (Milkman and Wanberg, 2012).

Physical Development

Heightened pituitary sensitivity to gonadotropin-releasing hormone, leading to increased gonadal androgens and estrogens, triggers rapid changes in height, weight, body shape, and genital development. Different maturational patterns are recognized for boys and girls (Hazen, Schlozman, and Beresin, 2008):

- Girls in the United States begin the physical changes of puberty between 8 and 13 in the following sequence: breast buds and additional breast development; enlargement of the ovaries, uterus, labia, and clitoris; and thickening of the vaginal mucosa.
- Menarche characteristically occurs 2 to 2½ years after breast buds, at an average age of 13 years. Boys develop most observable signs of puberty later than girls. Testicular enlargement usually begins around 12, followed by appearance of pubic hair and growth of the penis.
- Following the onset of puberty for both sexes, growth in weight and height usually begins distally in the hands and feet before moving proximally to the arms and legs and finally to the torso.

- Increase in muscle mass often lags behind growth in height, thus contributing to a period of awkwardness for some teens.
- On average, girls meet their peak in growth velocity around 12, two years before boys.
- The timing of puberty is influenced by health and nutrition. For example, puberty in girls has an earlier onset as compared to 30 years ago, with rates of precocious puberty in girls (defined as the appearance of secondary sex characteristics before the age of eight or the onset of menarche before the age of nine) rising.
- African American girls enter puberty slightly earlier than European American girls.

Gender Differences in the Psychological

Impact of Puberty

There are salient gender differences in the psychological impact of variations in the timing of puberty. Early-developing males have greater self-confidence and are likely to have greater academic, athletic, and social success than their peers, especially when compared to late-developing males. In contrast, early pubertal development in girls is correlated with lower self-esteem and heightened concern over body image (Milkman and Wanberg, 2012).

The Need for Sleep

Contrary to what teenagers would like their parents to believe (or let them get away with), adequate sleep is essential for healthy development during adolescence: about 9 to 9½ hours per night. Working against a good night's rest are (1) hormonal changes, including melatonin secretion, which causes a relative sleep phase delay with a natural tendency toward later onset of sleep and later waking times; and (2) increased academic and social demands. In addition to fatigue and impaired performance in class, inadequate sleep may increase the risk of health problems such as obesity (Hazen et al., 2008; Milkman and Wanberg, 2012).

Emotional and Social Development

According to Milkman and Wanberg (2012), Erikson's "epigenetic" model posits emotional development as a series of crises during which individuals must complete arduous, often conflicting tasks in order to maintain a developmental trajectory. Developmental challenges

are bipolar crises that force the individual to choose a more adaptive (functional) emotional stance; for example, during infancy—*trust versus mistrust*—if infants do not learn to trust caretakers, they will develop a suspicious, even paranoid stance when moving along the developmental trajectory (Milkman and Wanberg, 2012). From a psychosocial perspective, Erikson views adolescence as a period of identity formation and role diffusion. An incoherent sense of self and values will result in the lack of a sense of identity. In essence, adolescence represents a second separation from adult caretakers, with the first having occurred when the youth attained the motor and cognitive ability to move away from the parents' constant watch. Adolescence marks the period where youth are biologically, albeit not usually psychosocially, capable of surviving on their own.

Group Membership

In terms of group alignment and social belonging, Milkman and Wanberg (2012) opined that early teenage life is not so much concerned with identity formation as it is with group cohesion. Junior high school students (ages 12–14) who place a high priority on popularity are manifesting socialization patterns representative of a normal developmental stage (Milkman and Wanberg, 2012). Successful membership within groups forms the prototype for later confidence to move to different groups. Whereas healthy early adolescence is characterized by identity with specific group values and norms, "healthy later adolescence is characterized by increasing comfort with one's capacity to choose among many different groups and to endorse selectively the values that have particular relevance to the individual" (Milkman and Wanberg, 2012; Hazen, Schlozman and Beresin, 2008). The clinical implication of these divergent tendencies is that in counselling younger adolescents, it is important to take into account increased susceptibility to peer pressure as a means of maintaining group identity. Older teens may have a far more positive response to challenges to resist peer pressure for the sake of forming their own unique sense of identity (Hazen et al., 2008).

Parental Role-Modelling

During the process of separating and developing increasing autonomy from parents, teenagers occasionally revert to earlier coping patterns and require increased nurturance and

support. Even though they may appear aloof or unaffected by parental values, they are actually strongly influenced by the attitudes, values, and behaviours modelled by their adult caregivers. Hence, “it is extremely important for adults to open lines of communication and be mindful of the values and behaviours they are demonstrating to youth” (Hazen et al., 2008). Sometimes after long periods of rebellion and rejection, and after having romanticized relationships with surrogate parental figures (i.e., developing a “crush” on other adults), they become amenable to accepting the parental values and standards of conduct that they formerly rejected. Healthy parenting accepts individuated teenage identity formation and incrementally safer degrees of physical and psychosocial separation from parents (Milkman and Wanberg, 2012).

Parents and other prestige or authority figures in a teenager’s life can influence the development of a healthy self-concept by positive role-modelling (i.e., setting a good example through having responsible and gratifying experiences in their own lives) and by non-judgmental acceptance of their children (Milkman and Wanberg, 2012). According to Milkman and Wanberg (2012), parents should affirm the positive qualities that they identify in their teenager’s personality and overtly demonstrate admiration and praise for these qualities. In most cases, the higher rates of conflict with parents during adolescence are not indicative of a serious rift in parent-teenager relationships. Even when emotions run very high, both parents and adolescents report that the overall quality of their relationships remains strong, with a foundation of shared values and a considerable amount of mutual affection, respect, and family commitment. The conflicts are usually seen by both parties as relatively insignificant arguments about issues like dating curfews and personal appearance, while there is overall agreement about principal values such as honesty and the importance of a good education (Arnett, 1999).

Self-Image

A healthy and stable self-image is of primary importance in healthy adolescent development. Problems in the formation of a positive sense of self show significant correlations with disturbed peer and family relationships; depression and mood instability; and risky sexual or other acting-out behaviours, including substance abuse, crime, and poor school performance.

Overt manifestations of physical illness (e.g., deformity) or less visible symptoms (e.g., diabetes) can have a negative impact on an adolescent's confidence and self-esteem. During the peak of reliance on group acceptance, illness may crystallize underlying fears of being unwanted, alienated, and flawed. During these threat points, individual counselling, peer support groups, and increased parental nurturance and support can impact healthy teenage development (Hazen et al., 2008).

Impulsivity and Risk Taking

During the earlier phase of adolescence, a heightened sense of grandiosity and invulnerability is merged with a more limited capacity to anticipate immediate danger and to foresee long-term negative consequences. Risk potential may be increased by advances in physical maturity, heightened sex drive, increased intellectual capacity, and greater earning potential and geographic mobility. The offshoot of these potentiating factors may be increased experimentation and involvement in sexual activity, use of alcohol or other drugs, and courting of danger (Milkman and Wanberg, 2012).

Milkman and Wanberg (2012) reported that in the United States and other Western countries, the teen years and early 20s are times of highest probability for the emergence of risk-taking activity (engaging in behaviours with potential for harm to self and/or others). This pattern is generalized for dangerous driving, risky sexual activities, and criminal conduct. In fact, adolescence has long been recognized as a period of "heightened rates of antisocial, norm-breaking, and criminal behaviours, particularly for boys" (Arnett, 1999). Arnett (2006) reported that in the first decade of the 20th century, Hall formulated danger seeking as part of a usual pattern of adolescent storm and stress, arguing that "a period of semi-criminality is normal for all healthy [adolescent] boys". Even though a significant proportion of adolescent risk taking has a neurologic substratum, clear messages about healthy and safe lifestyles along with firm limits are required from parents, teachers, counsellors, and other adult role models. Although teenagers may find adult rules and admonitions off-putting, limit setting can also be perceived as a sign of protection, love, and support. When danger is not an issue, most experts view adolescent experimentation and environmental exploration as integral to the development of a healthy and individuated sense of self (Hazen et al., 2008).

Cognitive and Brain Development

Current perspectives on cognitive development during adolescence are rooted in the work of Jean Piaget (1896–1980). Piaget viewed adolescence as a period during which there is a shift from the rule-bound, concrete methods of problem solving during childhood (concrete operations) to more abstract thinking and more flexible problem solving (formal operations). At around the age of 11, teens begin to think hypothetically, draw logical conclusions based on observable data, and develop abstract concepts (e.g., freedom and equality for all) that guide future decisions and actions. These movements from literal, tangible, and static interpretations of the world to more fluid, principled, and logic-driven ideas are underpinned by changes in the structure and functional capabilities of the human brain (Milkman and Wanberg, 2012).

Brain Development during Adolescence

On the basis of structural brain-imaging studies conducted during the past decade, we now know that significant increases in white matter (which represent fibre growth and myelination) take place during adolescence and continues into the early 20s (Hazen et al., 2008). Myelination occurs caudal to rostal (back to front); therefore, sensory and motor regions mature earlier than the prefrontal areas associated with reasoning and judgment. There is also a corresponding decrease in the density of gray matter in the frontal and parietal lobes, also in a caudal-to-rostal pattern. Neuroscience views the decrease in gray matter (cell bodies) to be due to a process of "pruning." Based on an individual's life experience and relative reliance on developing brain pathways, active neuronal connections are strengthened, and idle ones are sacrificed with subsequent apoptosis (cell death) of inactive neurons. There is now solid scientific evidence to support the long-standing biologic aphorism that the thinking region of the brain is not always functioning fully in teenagers; ergo, adolescents are not thinking through the consequences of their behaviours (Milkman and Wanberg, 2012).

As in Shakespeare's (1623) *The Winter's Tale*, an older man laments the recklessness of youth: "I would there were no age between sixteen and three-and-twenty, or that youth would

sleep out the rest," he grumbles, "for there is nothing in the between but getting wenches with child, wronging the ancientry, stealing, fighting . . . ." (Act III, Scene 3).

Epidemiology of HIV and AIDS among Adolescents

Burden of HIV and AIDS in Adolescents – Global pattern

Globally, an estimated 35.3 million people were living with HIV at the end of 2012; of these, 2.1 million were adolescents aged 10–19 years, of which the majority was girls (56%) (UNICEF, 2013a). The gender disparity has persisted over time, with this number remaining largely unchanged over the past 5 years. These estimates include both adolescents who acquired HIV through mother-to-child transmission (perinatal and postnatal transmission through breast-feeding) and who acquired HIV behaviourally through unprotected sex or by sharing non-sterile injecting equipment. The majority of HIV infections are in sub-Saharan Africa, where 85% of all adolescents living with HIV were located in 2012 (1.7 million) (Table 2.1). About 1.3 million adolescents living with HIV in sub-Saharan Africa were in Eastern and Southern Africa and 390,000 in the West and Central Africa. Outside sub-Saharan Africa, South Asia had the highest number of adolescents living with HIV (130,000), accounting for 6% of the global burden of HIV among adolescents, followed by East Asia and the Pacific (110,000), Latin America and the Caribbean (81,000), Eastern Europe and Central Asia (22,000), and the Middle East and North Africa (17,000) (Idele et al., 2014).

Table 2.1: Estimated number of adolescents aged 10–19 years living with HIV by United Nations Children's Fund Regions, 2012

	Estimated Number of Adolescents Living With HIV, 2012		
	Total Aged 10–19 yrs	**Females Aged 10–19 yrs**	**Males Aged 10–19 yrs**
Sub-Saharan Africa	1,700,000	1,000,000	720,000
Eastern and Southern Africa	1,300,000	800,000	550,000
West and Central Africa	390,000	220,000	170,000
Middle East and North Africa	17,000	9100	8300
South Asia	130,000	62,000	64,000
East Asia and the Pacific	110,000	55,000	53,000
Latin America and the Caribbean	81,000	35,000	46,000
Central and Eastern Europe and the Commonwealth of the Independent States	22,000	11,000	11,000
Global	2,100,000	1,200,000	930,000

Source: United Nations Children's Fund, 2013.

Burden of HIV and AIDS in Adolescents in Nigeria

A useful point of departure is a brief response to the question - What do we know with some certainty about young people's vulnerabilities and responses to HIV and AIDS in Nigeria? In answering this question, it is important to remember that adolescents and young adults are a critical segment of any human society being the direct link between its future (children) and past (older adults) since they are for the most part preoccupied with preparation for the full assumption of adult roles and responsibilities. This age group, 10-24 year-olds, becomes even more important in Nigeria where it constitutes a large proportion of the total population

and already makes significant social and economic contributions to household and societal viability. Indeed, projecting from the 2006 national population census, adolescents and young adults make up over a third (31.6 percent) of Nigeria's large and growing population (National Population Commission, 2013). Thus, by the end of 2012 when Nigeria's population was estimated to have grown to over 172 million, young persons aged 10-24 numbered over 55 million. With about 3 million Nigerians presently living with HIV, young people are clearly disproportionately affected by the epidemic in absolute terms even with the decline in overall HIV prevalence from a high of 5.8% in 2001 to about 3.4% in 2012. However, it makes more sense to view this issue in comparative terms as health outcomes and associated socio-economic burdens are typically skewed in distribution across age and other key axes of social differentiation and stratification. Table 2.2 provides some broad indicators of youth vulnerabilities and responses to HIV and AIDS in Nigeria.

The most obvious inference to draw from these figures is that most young Nigerians become sexually active in their teens and that relative to the general population, Nigeria's female youth aged 20-24 have been most disproportionately affected by the HIV epidemic amongst the 4 broad age-gender categories of the sub-population aged 15-24. Moreover, the much higher HIV prevalence among female youth at ages 20-24 is observed alongside lower levels of comprehensive knowledge of HIV and condom use during higher risk sex although there is a slight female advantage in uptake of HIV testing services. These patterns broadly conform to data from across Africa which suggests that the combination of being young, poor, female and lacking access to sexual health information and services carry particularly high risks for HIV infection (Ofole and Agokei, 2014; UNICEF, 2011; UNAIDS, 2011; Coutinho, 2004). But it is also notable that the data indicates that while the level of comprehensive knowledge of HIV among Nigerian youth appears not to have improved since 2008, condom use during higher risk sex seems to be rising.

New HIV Infections among Adolescents

About 300,000 new infections occurred among adolescents aged 15–19 years in 2012, which accounted for about 13% of the 2.3 million new infections globally in 2012 (about 830 adolescents were infected with HIV everyday of 2012) (UNICEF, 2013b). However,

global aggregate data on the epidemic in adolescents, and youth in particular, mask significant regional and population differences. In 2012, approximately two-thirds of all new HIV infections in adolescents were among girls, mainly in sub-Saharan Africa. In some countries in this region, more than 80% of the adolescents newly infected with HIV in 2012 were adolescent girls—South Africa (82% female), Sierra Leone (85% female), Gabon (89% female), etc (UNICEF, 2013a).

Over a third of new HIV infections globally are among 15-24 year-olds and over 20% among adolescents aged 10-19 years in developing countries. Adolescents are critical to efforts to end AIDS epidemic. The adolescent HIV epidemic presents complex interactions of multiple determinants including individual risky behaviour and vulnerabilities related to biologic, economic, social, and cultural factors (Kasedde, Kapogiannis, McClure and Luo, 2014; Idele, Gillespie, Porth, Suzuki, Mahy, Kasedde and Luo, 2014). To achieve an AIDS-free generation, HIV and AIDS responses must take these factors into consideration while focusing on scaling up proven HIV specific interventions likely to achieve the highest impact on HIV prevention, morbidity, and mortality. This requires aligning implementation of the high-impact interventions with other development responses that enhance synergies, including those aimed at strengthening education, achieving gender equality, ending gender-based violence, protecting human rights, and increasing social protection for the most vulnerable. Four main concerns served as primary motivation for this work (Kasedde, Kapogiannis, McClure and Luo, 2014):

1. Adolescents living with HIV are more likely to die from AIDS than any other age group: Available data indicate that HIV-related deaths are increasing in adolescents whereas decreasing in all other age groups. This indicates a gap in attention to adolescents in treatment scale-up plans (Kasedde, Luo, McClure and Chandan, 2013; United Nations Children's Fund [UNICEF], 2013).
2. The epidemic in adolescents is not controlled: Despite the positive change seen from a global perspective in terms of a significant reduction in new HIV infections in adolescents aged 10–19 years between 2001 and 2012, this progress has been uneven. In most high-burden countries, there are still twice as many new HIV infections in the adolescent age group compared with the deaths; therefore, in these countries, the

epidemic in adolescents is still growing (UNICEF, 2013; Idele, Gillespie, Porth, Suzuki, Mahy, Kasedde and Luo, 2014). Given this reality, we are not on track to achieve an AIDS-free generation.

3. National resource allocation to address HIV in adolescents is neither optimal nor efficient: The growing number of AIDS deaths in adolescents and the fact that many countries continue to face a growing epidemic in adolescents indicates that the investments currently made to respond to HIV in adolescents are not adequate. There are multiple opportunities for greater effectiveness and efficiency using a result-focused and human rights–based investment approach that scales up proven high-impact interventions and ensures access to these among adolescents (Stover, Rosen, Kasedde, Idele and McClure, 2014).
4. Most national responses are not tracking the health status or the HIV epidemic and outcomes in adolescents aged 10–19 years, leading to missed opportunities for early intervention and more effective planning and support for this age group: The lack of disaggregated data in national health systems and HIV program monitoring reports is limiting ability of national program and decision makers to scale up effective responses for adolescents (UNICEF, 2013; Kasedde, Kapogiannis, McClure and Luo, 2014; World Health Organisation [WHO], 2013; Schunter, Cheng, Kendall and Marais, 2014).

Table 2.2: Broad Indicators of Youth Vulnerabilities & Responses to HIV & AIDS in

	2008[2]		2012	
	Male	**Female**	**Male**	**Female**
HIV Prevalence[1]				
15 – 19	***2.1***	***1.3***	***2.9***	***2.9***
20 – 24	***1.9***	***4.5***	***2.5***	***3.7***
15 – 49	3.2	4.0	3.3	3.5
Comprehensive knowledge of HIV[3]				
15 – 19	***28.2***	***19.7***	***22.9***	***20.8***
20 – 24	***37.2***	***24.8***	***32.1***	***23.9***
15 – 49	35.3	22.1	28.3	24.6
Age at 1st sexual intercourse				
15 – 24	***n.a***	***18.1[4]***	***17.0***	***17.0***
Condom use at last higher risk sex				
15 – 19	***36.3***	***28.6***	***56.4***	***39.4***
20 – 24	***55.1***	***40.5***	***64.8***	***48.5***
15 – 49	53.8	33.4	61.2	43.0
Tested for HIV & received results last 12 months				
15 – 19	***2.2***	***2.2***	*--*	***7.0***	*--*
20 – 24	***5.6***	***8.4***	*--*	***15.2***	*--*
15 – 49	6.4	6.6	16.0	18.2

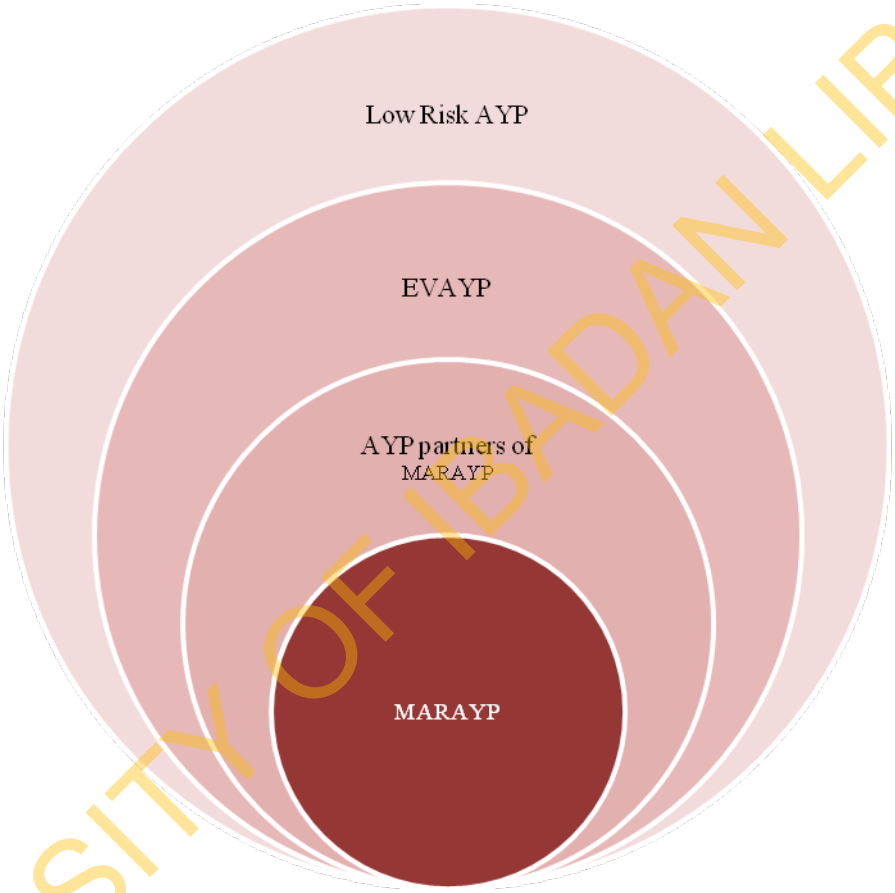
Nigeria

Notes: [1]These are population-based estimates from the 2007 and 2012 NARHS;
[2]Apart from the HIV prevalence estimates, the data for the other indicators for 2008 come from the 2008 Nigeria DHS;

[3]This refers to knowing that consistent use of condoms during sexual intercourse & having just one negative faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, & rejecting the 2 most common local misconceptions about HIV transmission and prevention;
[4]Relates to those aged 20-24 years only.

However, these highlighted patterns still do not sufficiently unmask the huge variations in HIV prevalence and its impact among different subgroups of young Nigerians, who represent a highly heterogeneous population. Factors that may affect HIV exposure and impact go beyond age and gender to include marital status, schooling status, level of education, employment status, rural–urban residence, migration status, sexual activity, living arrangements (with one, two, or no parents), HIV status, religion, sexual orientation, and household economic status as would be elaborated upon shortly. For now, as an illustration of this general point, we should note that data from the 2007 and 2010 IBBSS show clearly that HIV prevalence among young female sex workers (especially the brothel-based) and young men who have sex with men are 4-5 times higher than the prevalence observed in the general population (FMoH, 2011).

A nuanced, disaggregated but holistic approach is therefore required for a better comprehension and fuller appreciation of the particular vulnerabilities and responses to HIV among young people in Nigeria as captured in Figure 2.1.



AYP	Adolescents and Young People
EVAYP	Especially Vulnerable Adolescents and Young People
MARAYP	Most-At-Risk Young Persons

Figure 2.1: Segmentation of the population of adolescents and young people (AYP) by levels of HIV vulnerability and risks

(Source: Ahonsi, 2014)

In other words, for policy formulation and program planning, implementation, monitoring and evaluation purposes, segmentation is required with a light broad-sweep attention to the general low-risk adolescent and young adult population coupled with a progressively concentrated attention to:

i. the *especially vulnerable adolescents and young people (EVAYP)* comprising those engaging in high-risk sex, not using a condom at last high-risk sex, and lacking comprehensive knowledge of HIV;
ii. the AYP sexual partners of most-at-risk young persons; and then
iii. the *most-at-risk young persons (MARAYP)* defined as males and females who inject drugs (IDUs) with non-sterile injecting equipment, males who have unprotected anal sex with other males, females and males who are involved in sex work, and have unprotected transactional sex, and males who have unprotected sex with sex workers.

Such an approach makes it easier to identify where and among which sub-populations of adolescents and young people (AYP) HIV infections are occurring the most and why.

Major Factors in Nigeria's Youth Vulnerabilities to HIV Infection

The fact that young Nigerians are at the centre of the country's HIV epidemic is directly the product of their huge population and relatively high exposure to sexual activity with minimal protection against sexually transmitted infections including HIV. The evidence is indisputable that high proportions of female and male youth in Nigeria (especially the former) are sexually active in largely unsafe ways. The gender gap is partly associated with the low age at first marriage for females in Nigeria with nearly 80% of girls married by age 18 in much of northern Nigeria (NPC and ICF Macro, 2009). However, when males in Nigeria become more fully sexually active from their mid-20s, they very quickly overtake the females in frequency, multiplicity and range. In fact, the fairly huge literature on the definition, expression and consequences of sexuality in Nigeria suggests that key among the socio-economic drivers of the HIV epidemic in Nigeria as with most of Africa, south of the

Sahara, is male-centred intergenerational, transactional and/or non-consensual pre-marital, extra-marital and marital sex.

A few well-defined dimensions and manifestations of this phenomenon for which there are substantial bodies of supportive empirical data are particularly noteworthy:

a. A high social tolerance for and frequent resort to non-consensual sex (including rape) with girls by older men in communities, educational institutions, work settings and so on (Orubuloye, *et al*, 1992; Omoregie, *et al*, 2003; Ajuwon *et al*, 2001; Ajuwon, 2007). Indeed, for the majority of girls in Nigeria, as in much of Africa, sexual debut is often unplanned and unwanted (Luke and Kurz, 2002).
b. Frequent resort to and a generalised expectation of extra-marital sex by married men including exchange of money or material goods for such sex (Smith, 2007; Isiugo-Abanihe, 2003; Ladipo *et al*, 2001; Ankomah *et al*, 2004). In fact, a prominent feature of the social landscape of Nigeria's towns and cities is formal and informal or disguised commercial sex on offer by female youth to a large population of generally older men.
c. High levels of formal and informal polygyny (NPC, 2009; Smith 2007; Wa Karanja, 1987).
d. The social construction of sexual virility, sexual dominance and broad experience as part and parcel of masculinity right from adolescence in contrast to passivity and acquiescence as defining features of femininity (Fatusi and Wang, 2009; The International Women's Health Coalition-IWHC-, 2003; SSRHRN, 1999; CLP, 1997; Isugo-Abanihe 2003; Izugbara and Nwabuawele, 2007).
e. Poor child-parent/guardian/teacher communication and a culture of silence around youth sexuality with heavy reliance by youth for sexuality information and counsel on often unreliable sources like their peers and the mass media (Esiet and Whitaker, 2002; AHI, 2010; Huaynoca et al, 2013). Indeed, data from the 2008 NDHS shows that only half of Nigerian men and one-third of Nigerian women agree that adolescents aged 12-14 years should be taught about condom use for HIV prevention (NPC and ICF Macro, 2009).

From a purely public health angle, young people's vulnerabilities to sexual transmission of HIV would be significantly moderated if the levels of condom use were much higher especially in the context of higher-risk sex. But even as recent as 2013, data from the DHS show that only 40.6% and 50.5% respectively of young Nigerian women and men aged 15-24 who had two or more sexual partners in the past 12 months reported using a condom during their last sexual intercourse (NPC and ICF International, 2013). Nigerian youth often cite shyness, fear of implying a lack of trust in their sexual partner, lack of knowledge on correct use of condoms and concern about their reputation in the eyes of their partners, parents, or society as reasons for non-use of condoms with sexual partners (Adedimeji *et al*, 2007; Ahonsi *et al*, 2012; Lawoyin, 2007). Underlying this situation is low risk perception and low level of comprehensive knowledge of HIV.

In addition, the persistent gender gap in condom use may be associated with prevailing gender norms that prescribe female sexual passivity, hindering young women's access to essential SRH information and limiting their sexual negotiating power. Thus, the low condom use rate among Nigerian youth should be a central preoccupation of the national response to HIV given the high levels of high-risk sexual behaviour. Increased condom messaging and distribution, and the inclusion of condom use, sexual negotiation skills, and gender awareness in youth sexuality education and HIV prevention programs, are clearly an imperative (Ahonsi, 2014).

Burden of HIV and AIDS in Adolescents in Imo State

The adolescent's population represents one of the greatest assets of a country. Without adolescents there is no future for any country (Federal Republic of Nigeria [FGN], 2009). Worldwide more than 35 million people now live with HIV/AIDS, 3.3 million are under the age of 15 years (UNAIDS, 2012). In 2008, a global estimate of 430,000 new HIV infections occurred among children under the age of 15 (UNAIDS and WHO, 2009). Despite the number and the extent of HIV preventive strategies, young people accounted for about 40% of all new adult HIV infections worldwide (UNAIDS and WHO, 2009). The regional HIV/AIDS statistics in sub-Sahara Africa, showed that adults and children living with HIV/AIDS were 24.7 million, adults and children newly infected were 2.8 million, adult

prevalence (aged 15-49) 5.9% and deaths of adults and children 2.1 million. Eighty-two percent of the estimated 2.1 million adolescents aged 10-19 years were living with HIV in sub-Saharan African (UNAIDS, 2012).

In Nigeria in 2012, an estimated 2.3 million people are living with AIDS. HIV prevalence rate in Nigeria among adult aged 15-49 was 3.1. New infections are highest among young people aged 15-24 years: accounting for 40% of new infection in (UNAIDS, 2012). HIV prevalence by state, site and location show that the prevalence rate in Imo state Owerri (urban area) is 5.0 (FMOH, 2008) with most of the new cases found among adolescents and children. HIV prevalence among adolescents age 15–24 years: 2.2% in urban, rural 3.4%. National prevalence rate shows that the prevalence of the disease primary in school pupils was 6.2%, secondary school students, 6.1% and tertiary, 4.9% (Ministry of Education, 2011). In 1999, Orlu zone had a prevalence rate of 10.6% higher than the national average (FMOH, 1999). Prevalence through mother-child transmission 3.8% (Federal Ministry of Health [FMOH], 2008). HIV prevalence among primary school children is 3.5% and secondary school is 7.8% (Imo SACA, 2010). By 2012, there was a reduction in HIV prevalence in Imo State as the figure dropped significantly to 3.0%.

Adolescents in the locality frequently engage in behaviours such as unprotected sex, sharing skin cutting objects clipper, razors etc) that put them at risk of contracting STIs including HIV/AIDS. In the face of these dangers, knowledge, positive attitudes and self-efficacy skills that will propel preventive strategies required for risk reduction are lacking (Jodati, Nourabadi, Hassanzadeh, Dastgiri and Sedaghat, 2007). There is need to target this specific age group who are significantly at risk population (Paul-Ebhohimhen**,** Poobalan and van Teijlingen, 2008).

In Nigeria, most intervention studies focused on risk reduction programme only through the use of condom, thereby promoting and encouraging the use of condom, blood transfusion and Prevention of Mother to Child (PMTCT) programme on HIV, transmission through sharing of non-sterilised instruments e.g. clippers, scissors, knives and razor and other predisposing practices such as sharing tooth brushes in the homes and fighting and biting common to the adolescents were given less attention in the campaign against the spread of HIV. Little

attention is also given to risk reduction intervention that involves practicing sexual abstinence. The rate of sexual risk behaviours among adolescents and the associated health consequences continued to be on the increase because adolescents' reproductive health needs and problems have not been properly addressed.

The situation is exacerbated in Imo State by the characteristic restless, inquisitive and risk-taking nature of adolescents and youths which propel them to indulge in at-risk sexual behaviours such as having multiple partners, non- use/inconsistent use of condoms and alcohol/drug use among others. These risk behaviours predispose adolescents to health problems such as STIs (gonorrhoea, candidiasis, genital warts HIV, unplanned pregnancy illegal abortion and sexual violence (Neal, Mathews, Frost Frogstad, Camancho and Laski, 2012; UNFPA, 2013). Adolescents need to be empowered with knowledge of reproductive health issues, vulnerability to STIs, consequences of sexual risk behaviours and preventive options.

Major factors in adolescents such as inexperience, lack of understanding of the far-reaching consequences of HIV infection are associated with poor knowledge of relevant reproductive health issues. In Imo state, cultural and religious restrictions of sex education in schools and failure of the families and communities to provide adequate information and support for chastity and reproductive health issues are part of factors contributing to adolescents' sexual risk behaviours. The same phenomena occur in young people resulting from limited access to credible sources of information (FMOH, 2010). Adolescents need to be knowledgeable about HIV infection and the disease (AIDS), possess necessary skills to prevent risk behaviours and develops positive attitudes towards HIV/AIDS having been exposed to some form of education. But research reports have proven that it is not so.

According to FMOH (2010), population and family life education, including sexuality education, is not taught in most schools despite the fact that relevant curricular have been designed and approved for use in Nigerian secondary schools. The same was reported about schools in Imo State (Ministry of Education, 2011). Various stakeholders tend to withhold reproductive health and sexuality information from young people mainly because of negative traditional and socio-cultural beliefs. Risky behaviours contribute to poor reproductive and

sexual health outcomes such as unwanted pregnancies, abortion and STIs including HIV/AIDS. According to a study conducted in two southeastern Nigeria States by Amazigo, Silva, Kaufman and Obikeze (1998) quoted by Ajuwon, Olaleye, Faromoju and Ladipo (2006) on adolescents' sexuality by similar findings of 79% of adolescents being sexually active both in the rural before 17 years (Ajuwon, Olaleye, Faromoju and Ladipo, 2006).

Ijioma, Nwachukwu, Chidi and Nwachukwu (2010) in their study on incidence of HIV/AIDS infection among young people in Owerri West Imo State, reported that about 16.7% adolescents aged <24 years were infected with HIV compared with young people aged 25 years and above (83.3%). As identified by UNAIDS/WHO (2010), the highest rate of STIs including HIV/AIDS has been found among adolescents. This is because adolescents continually engage in risky sexual behaviour. They do not perceive any risk in respect of their sexual behaviour. This has serious implication to their health and society at large.

Various approaches including public enlightenment campaigns, seminars and workshops have been used to minimize risk-taking behaviour among adolescents. Still, sexual and reproductive situation in Nigeria remains poor especially among adolescents. Adolescents tend to seek information about sexual life from a variety of sources, including peer groups and pornographic films and most of the time they are misinformed. School-based preventive intervention studies are limited and effective strategies to communicate HIV/AIDS risk reduction behaviour messages are scarce.

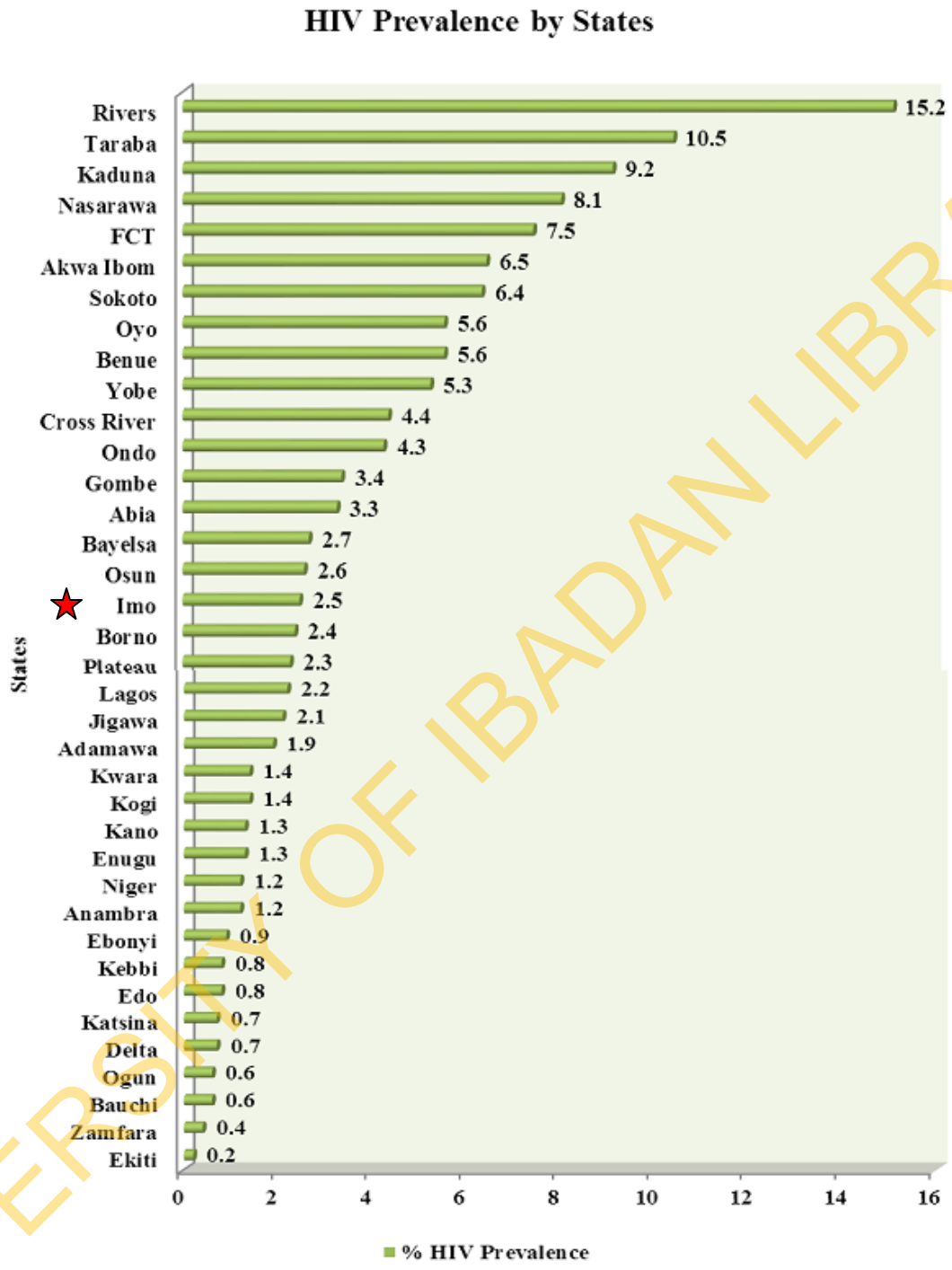


Figure 2.2: HIV prevalence across the States

(Source: National AIDS Reproductive Health Survey 2013)

★ Study site

HIV infection in Imo State follows the pattern with what obtains in Nigeria, since there are similarities in the mode of infection across the country (Figure 2.2). There are a range of risky sexual behaviours/factors which influence or drive HIV transmission that occur in Nigeria. These include:

Early sexual exposure among young people

The 2013 NARHS reported that 83% of female respondents and 78% of the male respondents reported that they have 'ever had sex'. Among young people aged 15-19 years, 37% of the females and 20% of the males had engaged in sex, showing slight decline from 2007 NARHS of 43% among females and 22% among males. Females in the NE and NW reported the lowest median age at first sex (15 years) and among males it was lowest for South-South (16 years).

Unprotected sex among young people

Some studies have shown low level of condom use among young people (15-24) that are sexually active. About 55% of young people reported using male condom during last sex with non–marital partner. The proportion was higher in males (63%), compared to females (45%) and higher in urban than rural areas (NARHS, 2013). The proportion of young people reporting such use of condom was highest in the SW (62%) and lowest in the NE (51%).

Condom use

NARHS (2013) reported that awareness of male condoms was considerably higher (73%) than that of female condoms (4%). Overall, only 54% of sexually active respondents reported using male condoms within the last 12 months preceding the survey. About 55% who had sex with a non-marital partner reported using condoms with their last non-marital partner. SW reported the highest proportion of condom usage (62%) with non-marital partners, while NW was low (49%).

The use of condom with non-marital partners increased with level of education and with age and peaked at 25-29years, after which condom use declined with increasing age. Condom use at last sex within boyfriend/girlfriend relationship was higher among males (61%) compared to females (46%) Among men, those who are unmarried and have never had sex are least likely to be aware that using condoms and limiting sexual intercourse to one uninfected partner reduce the risk of HIV transmission (62%). On the other hand, men who have never

been married but who had sex are most likely to be aware of these prevention methods (81%) (National Population Commission (NPC) [Nigeria] and ICF International, 2014).

Transactional sex

NARHS (2013) showed that 5% of females and 7% of males reported that they have ever accepted or given gifts of some kind in exchange for sex. The proportion of respondents that received /gave gifts in exchange for sex was higher among the younger age group (15-29 years), and in urban areas, this was also highest in the South-South for females (13%) and in the southeast for males (10%).

Multiple sexual partners

The preliminary report of the 2013 NDHS (National Population Commission (NPC) [Nigeria] and ICF International, 2014) reported that multiple sexual partners is more common among men, as 13% of men aged 15-49 reported having had more than one sexual partner in the last 12 months. The higher reporting of sexual partners by men may partially be attributed to the prevalence of polygamous unions and the greater social acceptance of men having more than one partner. Multiple sexual partners among men increase with age: under 25 years old (4%), 25-29 age-group (13%), age 30-39 (17%) and among men aged 40-49 (23%). Having multiple sexual partners among men is highest in rural areas (14%) and among men with no education (18%). NARHS (2013) reported that of the respondents who have had sex within the past 12 months, only 6% of females' and 27% of males reported having multiple sex partners. There were differences across the zones, age groups and education levels. Among females, the least level of multiple sex partners was reported in the NW (2%) compared with NC (10%).

Among males, multiple sex partnering was high in the SE (21%), SS (25%) and NC (35%). A high proportion of never-married females (18%) and separated/widowed (19%) compared with married females (4%) reported having multiple sex partners. These findings were similar among men, but substantially higher. Multiple sex partners among never married males was 39%, separated/widowed 39% compared with married men 23%. Having multiple sexual partners was high among women with higher education (10%) compared with 3.4% among females that had never attended school. Among males, having multiple sexual partners was similar among men with no education and those with higher education (27%)

and those with primary education (24%). Overall, among men who had ever had sexual intercourse, the mean number of partners in a lifetime is 4.1. Men reporting a higher than average mean number of lifetime partners are older men (4.6), urban men (4.7), men with more than secondary education (5.2), and men in the South South (6.9) (National Population Commission (NPC) [Nigeria] and ICF International, 2014).

Multiple partners and condom use

Overall, 20% of men age 15-49 who reported having multiple sexual partners also reported using condoms during their last sexual intercourse. Condom use is much more frequent in urban areas than in rural areas (36% compared with 11%) and increases with education, from 25% among men with no education to 45% among men with more than secondary education (NDHS, 2013). Education is positively associated with women using condoms during such an encounter. Urban women are more likely than rural women to have had two or more partners in the past 12 months and also more likely to have used condoms during the last sexual intercourse (44% and 15% respectively).

Multiple non-marital partners

Sexual intercourse with non-marital sexual partners is often considered to be of higher risk than sex with marital partners and this risk increases with multiple non-marital partners. About 2% of females and 9% of males had multiple non-marital partners. Females with secondary school education (3%) and higher education (4%) reported having multiple non-marital sex partners (NARHS, 2013). Males that are divorcees/separated/widowed were more likely to have multiple non-marital sexual partners. Having multiple sex partners put people at higher risk of STIs including HIV.

Low perception of risk

HIV risk perception among the general population in Nigeria is low. NARHS 2013 reported that respondents who perceived themselves at high risk for the HIV infection had an overall prevalence of 5% compared to those with low risk perception (4%).

The summary of risk factors and drivers of the HIV epidemic in Nigeria are presented below

- Low comprehensive knowledge of HIV (including knowledge about HIV transmission)
- Low knowledge of HIV status

- Low correct and consistent condom use
- Multiple concurrent sexual partners
- Early sexual initiation
- Stigma and discrimination
- Presence of untreated STIs
- TB/HIV co-infection
- Unsafe blood and blood products
- Sharing of sharps and needles

HIV Knowledge

The overwhelming majority of new HIV infections are transmitted through sex. A basic understanding of HIV and how it spreads is a necessary component of prevention, although this is not sufficient to change behaviour and reduce risk (Centers for Disease Control and Prevention [CDC], 2013). Despite consistent calls for improving knowledge, in general, levels of knowledge of HIV among adolescents and young adults are appallingly low, especially in the worst affected countries.

Recent surveys in countries with generalized epidemics show that, in most of these countries, less than half of adolescent boys and girls, aged 15–19 years, have a basic understanding of HIV. This falls far short of the 95% target agreed in 2001 at the UNGASS. Consistent with the higher rates of HIV among girls in the most affected regions, girls tend to have worse knowledge levels than boys of the same age. In sub-Saharan Africa, only 26% of adolescent girls aged 15–19 years and 36% of adolescent boys of the same age have a comprehensive and correct knowledge of HIV. Disparities in knowledge about HIV prevention among adolescent girls and boys are linked to gender, education, household wealth, and place of residence. Adolescent girls and boys in poor households and living in rural areas are less likely to have comprehensive knowledge about HIV and AIDS. These differences persist in nearly all countries with available data. Global and regional averages can mask individual country progress. Several countries show evidence of improved knowledge about HIV prevention. Between 2000 and 2012, Belarus, Guyana, Jamaica, Namibia, Rwanda, Serbia, Swaziland, Trinidad and Tobago, Vietnam, and Zimbabwe witnessed remarkable increases in

knowledge about HIV prevention to levels above 50% or more among adolescent girls, and there were similar increases among adolescent boys in Rwanda and Namibia (Idele et al., 2014; UNICEF, 2013c).

HIV Testing

Most adolescents do not know their HIV status. Although most adolescents know of a place where they can get tested for HIV, the proportion who reported ever having had an HIV test remains low across most countries; yet, this is a critical step toward access to HIV care and treatment. Although access and coverage vary greatly by country, survey data from 2008 to 2012 in most sub-Saharan African countries indicate that less than 1 in 3 adolescent girls aged 15–19 years reported having ever been tested for HIV and having received.

Adolescent and Young Adult Risk Behaviours

Considerable attention has recently been given to the "paradox of adolescent health" (Dahl, 2004). Adolescence is a life stage during which individuals are generally at their strongest and healthiest; compared to other stages of life, they have increased morbidity and mortality rates from preventable causes. One explanation of this paradox involves adolescents' propensity for risk-taking. Risk taking can be defined as engaging, often impulsively, in behaviours that are high in subjective desirability or excitement but which carry the potential for injury or loss (Geier, Terwilliger, Teslovich, Velanova, and Lunda, 2010). Adolescents and young adults are more likely than individuals at other life stages to engage in behaviours that involve risks, such as drinking alcohol, taking illegal drugs, having unprotected sex, engaging in delinquent activity, and reckless driving (Arnett, 2000). For the purposes of this study, risk behaviours include these activities because they put one's health and safety in danger and tend to incite societal concern for the well-being of adolescents.

Adolescents are more likely than older or younger individuals to engage in risky behaviours, such as drinking alcohol, taking illegal drugs, having unprotected sex, engaging in delinquent activity, and driving recklessly (Arnett, 2000). Because these behaviours can result in injury, arrest, pregnancy, or death, an important task for developmental researchers is to understand the mechanisms that contribute to these outcomes, which may include biological, cognitive, and psychosocial factors (Kelley, Schochet, and Landrey, 2004). One crucial factor is likely to be the decision making process that adolescents use when opportunities for risk behaviour arise. Although research on predictors and correlates of risk behaviour is plentiful (Jessor, 1998; Rivara, Park, and Irwin, 2009), surprisingly little research has addressed the decision making process adolescents employ when faced with the opportunity for risk behaviour in the real world. The primary goal of this study is to better understand how adolescents make decisions to engage in risk behaviour and to determine some factors that affect the decision making process.

Adolescence as a risky period

During adolescence, there are many changes, including physical, cognitive, emotional, and social changes, taking place within and among individuals that may be factors in adolescents' increased proclivity to take risks (Steinberg and Cauffman, 1999). For example, during adolescence, it is common to become more autonomous from parents, resulting in the opportunity to make more decisions independently (e.g., Steinberg, 2001; Byrnes, 2005). Adolescents also tend to become more influenced by peers and to care more about what their friends think (Prinstein, Borgers, and Spirito, 2001; Susman, Dent, McAdams, Stacy, Burton, and Flay, 1994). Indeed, most risk taking occurs in groups of peers, not independently (see Steinberg, 2007) suggesting that friends have a large influence over adolescents' decisions. Additionally, there are many brain changes occurring that may affect adolescents' decisions and behaviours (Steinberg, 2010a). Taken together, these changes, which are common to adolescence, can lead to potentially dangerous decisions and behaviours.

An interesting question to pose is why do these changes take place in adolescence, especially since people take calculated risks throughout adulthood? Evolutionary theory may help to explain the purpose of some of the socio-emotional changes that accompany the biological

changes. Rewards are objects or events that generate approach/consummatory behaviours and involve positive or hedonic feelings. Rewards are therefore important for survival as they are integral for necessary behaviours, such as eating and reproduction (Schultz, 2010). A unique aspect of adolescence is attainment of sexual maturity. Evolutionary theory suggests that sexual promiscuity and competition peak in adolescence to help young people determine their own status and desirability as a mate and their preferences in a mate while practicing mate attraction tactics (Ellis et al., 2011; Weisfeld and Coleman, 2005).

Ellis and colleagues (2011) assert that natural selection may favour strong emotional and behavioural responses to social stimuli during adolescence due to an increase in mating opportunities. For instance, engaging in daring yet dangerous activities in presence of members of the opposite sex may be construed as "showing-off" for potential mates. Predictors of risk behaviours often include social and cognitive factors. Often different types of risk behaviours tend to have similar risk factors including social (poor parenting practices and deviant peer affiliations), cognitive (low IQ), temperamental (high impulsivity and poor self-regulation), and economic factors (low quality education and poor neighbourhood quality) (see Farrington, 2004; Savin-Williams and Diamond, 2004; Chassin et al., 2004). Decision making has also been conceived as a potential factor in risk behaviours (Reyna and Farley, 2006). However, there is relatively little empirical evidence linking decision making to real world adolescent risk behaviours.

Prevalence and Costs of Adolescent Risk Behaviours

The costs of adolescent and young adult risk behaviours are staggering. In 2009 in the United States, the majority of all deaths among youth aged 10-24 resulted from unnatural causes, often motor-vehicle crashes, which many times involve an intoxicated driver (CDC, 2010). Risky sexual behaviours are also prevalent problem among young people. In 2009, there were approximately 9.1 million cases of sexually transmitted infection among youth aged 15-24 (CDC, 2010) and only 56.8% reported using contraception (American College Health Association, 2011). There are societal costs involved in adolescent risk behaviours. For instance, in 2001 underage drinking incurred nearly $70 billion in medical, work loss, lost quality of life, and other resource costs (Miller, Levy, Spicer and

Taylor, 2006) and teen pregnancy incurred over $9 billion in taxpayer's money (Hoffman, 2006). Furthermore, in 2005, there were 1.7 million juvenile delinquency cases handled in court (Sickmund, 2009). Understanding the decision-making processes contributing to these adolescent risk behaviours continues to be an important task for developmental researchers, with significant implications for practice and social policy.

Multiple Risk Behaviour in Adolescence and Young Adulthood

Many health risk behaviours are established during adolescence, and often maintained into adulthood, affecting health and wellbeing in later life. In the United Kingdom (UK) for instance, the major problematic risk behaviours among young people include tobacco, alcohol and illicit drug use and sexual risk behaviour. Although some behaviours, such as smoking, have declined among young people in the UK over the past 10–20 years, health survey data indicate that the levels of most risk behaviours are still high, especially compared with other high-income countries (UNICEF Innocenti Research Centre. 2007).

Substance (alcohol, tobacco and illicit drug) use and sexual risk behaviour share some common underlying determinants that protect young people from, or predispose them to, risky behaviour (Beyers, Toumbourou, Catalano, Arthur and Hawkins, 2004; O'Connell, Boat and Kenneth, 2009; Resnick, Bearman, Blum et al., 1997). Perhaps unsurprisingly, there is evidence that these risk behaviours sometimes cluster together (Mann, Brima and Stephenson, 2010; Madkour, Farhart, Halpern, et al., 2010). To date, most intervention programmes have targeted single risk behaviours, but there are proposals for interventions to take a broader approach, to address multiple problems and precursors (Bonnell C, Fletcher A, McCambridge, 2007; Jackson, Henderson, Frank and Haw, 2012).

Extent and Determinants of Youth Sexual Health-Seeking Behaviours

However, the Nigerian youth population in all of its heterogeneity is not completely passive and unresponsive to the risks of HIV infection and opportunities to seek care and treatment. It seems, for example, from comparing the data from the last two rounds of the NARHS (2007 and 2012) that uptake of HCT services is increasing among those aged 15-24 years (Table 2.1). Even so, the overall levels of sexual health-seeking behaviour by young people

in Nigeria remain too low relative to their high levels of exposure to risk-bearing sexual activities.

The social stigma surrounding pre-marital adolescent sexuality, negative attitudes of health providers within the formal healthcare system, limited sexual and reproductive health information, fear of parental retribution and low-risk perception are factors that have repeatedly been highlighted by research as contributing significantly to the inadequate sexual health-seeking behaviours of Nigerian youth (Esiet and Whitaker, 2002; Okonofua et al., 1999; Adebayo *et al*, 2010). Factors such as gender, age, age at sexual debut, STI knowledge, geopolitical zone of residence and economic status have also been found to play a role in SRH seeking behaviour. For example, a secondary data analysis of the 2003 and 2005 National HIV/AIDS and Reproductive Health Surveys, found that there were large gender differences in the STI treatment –seeking behaviour of Nigerian youth (Mmari *et al*, 2010). The majority of males had sought treatment for their STI (64%) while in contrast more than half of females (52%) had not sought treatment. Seeking treatment was more common than not among 19-21 year olds (52% vs. 49%) and 22 -24 year olds (63% vs. 37%); not seeking treatment was more prevalent among those aged 15-18 (56% vs. 44%). Additionally, there was variation in treatment seeking by geopolitical zone. For example, the South South had the highest proportion of youth who sought treatment for their STI (72.6%) while in the North West only 36.8% of youth sought treatment. Older age at sexual debut and higher STI knowledge were also associated with treatment seeking behaviour (Ahonsi, 2014).

Despite high levels of high-risk sexual activity, condom use levels among youth aged 15-24 in Nigeria remain very low with only 22% of young men and 11% of young women using a condom during the first sexual intercourse according to the 2008 NDHS (NPC and ICF Macro, 2009). The likelihood that a condom was used by a young person during first sex increased with level of education and household wealth quintile. Among youths engaging in higher risk sexual activity (sexual intercourse with a non-marital, non-cohabitating partner); 36% of young women and 49% of young men reported using a condom at their last high risk sexual activity. Among sexually active unmarried women, 31.6% of those aged 15-19 and

42. 3% of 20-24 year olds currently use a male condom. This low level of condom use by young people is consistent with findings of smaller studies (Adedimeji *et al*, 2007; Lawoyin, 2007).

Even for voluntary HIV testing services which are a gateway to care and prevention, most Nigerian youth remain unaware of their HIV status. HIV testing levels were still as low as less than 10% among those aged 15-19 and less than 16% among those aged 20-24 in 2012. Apart from age and gender, other factors that have been shown to be positively associated with uptake of HCT by young people in Nigeria include years of formal schooling, household economic status and urban residence (NPC and ICF Macro, 2009; FMoH, 2013). In addition, factors that may contribute to the low uptake of voluntary counselling and testing (VCT) among youth are low awareness of VCT and places where VCT services are offered, low risk perception, concerns about confidentiality and bias, actual or perceived cost of VCT, and fear of being positive and stigmatization (Bamidele *et al*, 2009; Ajuwon *et al*, 2011).

Another source of vulnerability for youth in terms of sexual health-seeking behaviour is their choice of provider with significant numbers turning to non-professional providers like traditional healers and patent medicine vendors. A majority (65.4%) of youth that reported having had an STI in a study of in-school and out-of-school youth sought treatment at a patent medicine seller (Okereke, 2010). In the same study, although most (71.5%) of the adolescents affirmed the availability of reproductive health centres within their area of residence only 26.4% of those with this knowledge were willing to purchase contraceptives offered at the centres. Furthermore, about half of the female adolescents (49%), who reported that they have had an abortion, obtained services from patent medicine operators with almost three quarters (71.1%) experiencing post-abortion complications. Relatedly, a community based survey of women of reproductive age revealed that the odds of adolescent women turning to a non-professional provider for abortion services were 2.6 times as high as the odds among older women (Bankole *et al*, 2007).

It is also important to report here that, provider capacity and societal bias issues showed up consistently in a wide range of qualitative inquiries conducted between 2011 and 2013 by the

Population Council among various categories of key informants and adolescents and young people (including out-of-school youth, married adolescents, and adolescents living with HIV) across the six geopolitical zones of Nigeria (Ahonsi, et al, 2012; UNICEF and Population Council, 2013). In particular, because of the social and cultural environment surrounding the socialisation of young people most young people find it difficult to proactively visit sexual and reproductive health facilities for care especially for fear of being judged or condemned by adult care providers as wayward. In addition, young people tend to have a care-free attitude towards their health status and delay accessing SRH care even when they have an opportunity to utilise free health care services. These unwholesome HIV and SRH-care seeking tendencies were reported by many key informants to be much worse among out-of-school youth and those in rural and poor urban areas.

Overall, it is clear that the sub-optimal sexual health-seeking behaviours of Nigerian youth are shaped by a multiplicity of factors operating at the individual, household, community, and institutional levels. Contributory to and exacerbating these vulnerabilities are structural issues of poverty, gender, inhibitive social constructs, perceptions, and beliefs around youth sexuality, and critical policy, programming, and service delivery deficits.

Risk of sharing of non-sterile sharp instruments

A significant proportion of Nigeria adolescent engage in risky practices such as sharing of non-sterile sharp instruments used for barbering (clippers, scissors, knife and razor), and playing with sharp instruments. Arulogun and Adesoro (2009) noted that those practices have been vaguely classified as other and given less attention in the campaign against the spread of HIV Another study by Biadgelegn (2012) reported that non-sterile barbering instrument in barbering shops may create opportunity for transmitting HIV. David, James, Juan, Nanteza and Kenneth (2011) in their study reported high incidence of accidental cuts on the scalps using razors 46(76.7%) and manual clippers 26(32% The instruments used were razor blades 46 (76.7%), manual clippers 26 (43.3%), smoothers 48 (80.0%), scissors 34(56.7%) and electric clippers 48 (80%). Clippers were sterilized in 4 (6.7%) and disinfected in 44 (73.3%), while no decontamination was carried out in 8 (13.8%) sessions.

For the purpose of this study, other wrong practices common to early adolescents such as: sharing of tooth brushes in the homes, sharing clothes, fighting and biting fellow students, treatment of injured students without gloves, likely to predispose them to HIV infection were highlighted and discouraged.

Factors associated with adolescents' risky sexual behaviour

There are many factors contributing to adolescents' risky sexual behaviour. Some of the factors include:

S/№	Factors Associated With adolescent risk sexual behaviours	Authors
1	Non- perception of risk by adolescents	Rosen Stock, 1990; Adedimeji, Omololu and Odutolu, 2007; Okanlawon and Asuzu, 2013; Rumu, 2014; Al-Quai, Kazial and Almuneef, 2013.
2	Poverty	Khana, 2013; Action Health Incorporated, 1996)
3	Lack of information on reproductive and sexual health	Walsh and Ward, 2010; Ijioma Nwachukwu, Chidi and Nwachukwu, 2010; Amazigo et al, 1998
4	Failure of families and communities to provide adequate information and support for chastity	Khana, 2012; Walsh and Ward, 2010; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007
5	Lack of communication and negotiation skills	Awotidede, Philips and Len, 2014; Kirb and Lepore,2007; UNICEF, 2010; Shittu,

		Zacharial, Ajayi, Oguntola, Izegbu and Ashiru, 2007; Action Health Incorporated, 1996) Ijioma, Nwachukwu, Chidi and Nwachukwu, 2010
6	Conflicting Information from society about reproductive and health	Milkman and Wanborg, 2012
7	Gender power unbalances	

Non-perception of risk by adolescents

Some adolescents do not believe that they are at risk of infections. Adolescents perceive that they are at low risk and that it is unnecessary to take preventive measure. A number of studies have examined the relation of perceived vulnerability of HIV risk associated behaviour (Rosen stock (1990). Results show that adolescents who perceive themselves to be at higher risk of infection are more likely to take preventive measures (Adedimeji, Omololu and Odutolu, 2007). According to Rosen stock (1990) and Okanlawon and Asuzu, (2013), the likelihood that someone will take preventive measure depends on the individuals perception that they are vulnerable to the condition, the consequences of the condition would be serious and the precautionary behaviour would effectively prevents the condition and the benefits of reducing the threat of the condition exceed the cost of taking action. However, one study that investigated the influence of perceived peer behaviour versus actual peer behaviour on youth risk–taking found that perceived peer behaviour is a stronger determinant (Rumun, 2014; Al-Quai, Kazi and AlMuneef, 2013).

Lack of information on reproductive and sexual health

Between the age of 12 and 14 years, adolescents usually develop a normal sexual drive. Normally, the sexual drive is present in all people. There is a normal feeling of waiting to be touched, loved and cared for by someone of the opposite sex. Adolescents tend to seek information about sexual life from a variety of sources, including their peer groups and

pornographic films. Most of the time they are misinformed; wrong information about sexual intercourse and reproductive health, lack of education and failure of the families and communities to provide adequate information and support for chastity and reproductive health leads to unhealthy sexual relationships and risky sexual behaviour. Risky sexual behaviour again exposes adolescents to high risk of sexually transmitted infections such as gonorrhoea, syphilis and HIV/AIDS (Walsh and Ward, 2010; Ijioma, Nwachukwu, Chidi and Nwachukwu, 2010; Amazigo et al, 1998).

Failure of families and communities to provide adequate information and support for chastity

Khana (2012) identified, poverty, lack of education and failure of the families and communities to provide adequate information and support for chastity and reproductive health as some of the factors contributing to adolescents' sexual risk behaviour. One of the most frequently considered potential predictors of HIV risk – associated behaviour is inadequate knowledge of HIVAIDS and adolescents sexual and reproductive health needs (Khana, 2012). The society at times gives conflicting information about sexual relationships and reproductive health. This is probably associated with the fact that adolescents are not homogenous group. Their lives vary enormously by age, sex, marital status, class, religion and cultural context.

In respect to that, the lives and sexual and reproductive health needs of adolescents may vary considerably across these different groups, and programmes and interventions need to be designed to take that diversity into account. For instance, a study was done in rural Kenya among young schoolboys aged 15–19 years to examine the dual risk of unwanted pregnancy and STIs/HIV. Finding revealed that in Kenya, boys perceived sexual activity as part of their initiation into manhood. According to the boys' impression, failure to have sexual intercourse was seen as carrying the risk of losing status among your peers. A recent Nigerian's survey had shown that the parents that ought to be the primary educators/communicator to their children on specific sexuality values had played the least role in this regards (Action health Incorporated, 1996; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007).

Lack of communication and negotiation skills

Generally in relation to HIV, life skills (life building skills) are said to facilitate the negotiation of risk and vulnerability in the face of the epidemic. They enable people to communicate openly and freely about sex and drugs, indicating their preferences and what they want to avoid. Life skill-based education for HIV prevention has the goal of increasing knowledge and supportive norms, through teaching skills and increasing motivation and intervention to change behaviours .Commonly cited life skills include communication and listening skills negotiation and refusal skills decision–making and problem-solving skills, coping and self-management skills, self-efficacy and ability to manage feelings and stress (UNICEF, 2010). Where adolescents lack these skills, they cannot be able to protect themselves against HIV infection (A recent Nigerian's survey had shown that the parents that ought to be the primary educators/communicator to their children on specific sexuality values had played the least role in this regards (Action health Incorporated, 1996; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007).

Misconceptions about HIV/AIDS among adolescents

The spread of HIV/AIDS has affected millions of people worldwide; AIDS is considered a pandemic (UNAID & WHO, 2007). In 2009, the World Health Organization (WHO) estimated that there are 33.4 million people worldwide living with HIV/AIDS, with 2.7 million new HIV infections per year and 2 million annual deaths due to AIDS (UNAID & WHO, 2007). In 2007, UNAIDS estimated: 33.2 million people worldwide were living with HIV; AIDS killed 2.1 million people in the course of that year, including 330,000 children, and 76% of those deaths occurred in sub-Saharan Africa (UNAID, 2009). According to the UNAIDS 2009 report, some 60 million people worldwide have been infected with HIV, resulting in approximately 25 million deaths and 14 million orphaned children in southern Africa alone since the epidemic began decades ago (UNAIDS, 2009).

Misconceptions about HIV and AIDS arise from several different sources, from simple ignorance and misunderstandings about scientific knowledge regarding HIV infections and the aetiology of AIDS to misinformation propagated by individuals and groups with ideological stances that deny a causative relationship between HIV infection and the

development of AIDS. Below is a list and explanations of some common misconceptions and their rebuttals.

Sexual intercourse with a virgin will cure AIDS

The myth that sex with a virgin will cure AIDS is prevalent in sub-Saharan Africa (Virgin Cure, 2013). Sex with an uninfected virgin does not cure an HIV-infected person, and such contact will expose the uninfected individual to HIV, potentially further spreading the disease. This myth has gained considerable notoriety as the perceived reason for certain sexual abuse and child molestation occurrences, including the rape of infants, in Africa (Collins, Sutherland and Kelly-Weed, 2012, Kirby, Laris and Rollen, 2007). In a study involving 358 senior secondary students on knowledge, attitude and practices of adolescent secondary school students in Uvwie Local Government Area of Delta state to HIV/AIDS, Tobin and Okojie (2010) also found some misconception about HIV and AIDS. Findings showed that over 75% knew methods to prevent spread of which 23% cited sex with a virgin.

Sexual intercourse with an animal will avoid or cure AIDS

In 2002, the National Council of Societies for the Prevention of Cruelty to Animals (NSPCA) in Johannesburg, South Africa, recorded beliefs amongst youths that sex with animals is a means to avoid AIDS or cure it if infected. As with "virgin cure" beliefs, there is no scientific evidence suggesting a sexual act can actually cure AIDS, and no plausible mechanism by which it could do so has ever been proposed. The risk of contracting HIV via sex with animals is small, but the practice has its own health risks. However, no study has been found in Nigeria where respondents indicated that sexual intercourse with animals will prevent one from contracting HIV or cure the virus from the body systems completely.

HIV antibody testing is unreliable

Diagnosis of infection using antibody testing is a well-established technique in medicine. HIV antibody tests exceed the performance of most other infectious disease tests in both sensitivity (the ability of the screening test to give a positive finding when the person tested truly has the disease) and specificity (the ability of the test to give a negative finding when the subjects tested are free of the disease under study). Many current HIV antibody tests have

sensitivity and specificity in excess of 96% and are therefore extremely reliable (WHO, 2004).

Progress in testing methodology has enabled detection of viral genetic material, antigens, and the virus itself in bodily fluids and cells. While not widely used for routine testing due to high cost and requirements in laboratory equipment, these direct testing techniques have confirmed the validity of the antibody tests. Positive HIV antibody tests are usually followed up by retests and tests for antigens, viral genetic material and the virus itself, providing confirmation of actual infection.

Knowledge about HIV/AIDS among adolescents

Knowledge is a state of knowing, familiarity, awareness or understanding gained through experience or study. According to [IPPF] (2010) it is the sum or range of what has been perceived, discovered or learned, the facts, feelings or experience known by a person or group of people. HIV/AIDS knowledge is the knowledge level of HIV risk within the individual's community, knowledge of transmission and prevention (Morris, 2007). HIV/AIDS knowledge also include an understanding of the facts about HIV/AIDS, counselling and testing, epidemiology of the disease and treatment regimen- use of antiretroviral drugs and risks reduction practices. Harden and Mendle (2011), states that knowledge depicts understanding, familiarity gained by experience or education. HIV knowledge encompasses information related to basic facts about HIV and AIDS (causation, mode of transmission, prevention, sign and symptoms, misconception and stigma towards HIV/AIDS. It is important for all especially the adolescents and the youths to have a adequate knowledge of HIV/AIDS risk reduction behaviours because of their high vulnerability in adopting negative behaviour if they are not properly guided (WHO, 2012)

Adequate knowledge of HIV/AIDS to the researcher entails the understanding, appreciation and proper application of accurate information related to HIV infection and other sexuality issues. This would enable the individual to live a life free from sexual health problems. This intervention gave accurate and adequate instructions that enable the subjects to acquire good knowledge of HIV/AIDS, risk reduction practices. Knowledge is said to precede attitude, and

both precede behaviour. Jamaican researchers revealed in their study on the knowledge, attitude, beliefs and practices of youths aged 12-14 years that 68% of the youths had a knowledge of how HIV/AIDS can be transmitted, while over 75% of the respondents were able to mention at least one mode of transmission (Hindin, 2012; Action Health Incorporated, 1996; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007).

Mode of transmission

The majority of HIV infections among adolescents are contracted through sexual activity. Among HIV positive thirteen to nineteen year-old females who had not developed AIDS, 49 percent of the cases were associated with exposure through sexual contact, 7 percent through injection drug use, 1 percent through blood exposure, and 43 percent through a risk not reported or identified. Among males in the same age group, 50 percent were associated with male to male sex, 5 percent with injection drug use, 5 percent with both male to male sex and injection drug use, 5 per cent with haemophilia or coagulation disorder, 7 percent with heterosexual exposure, 1 percent with blood exposure, and 28 percent with an unreported or unidentified risk (FMOH, 2002).

Many adolescents are sexually experienced, but the extent of experience and risk varies for different groups of adolescents (Action Health Incorporated, 1996; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007). Youth Risk Behaviour Survey (YRBS) data indicate that about half of all high school students report having engaged in intercourse at least once. Almost 10 percent of youth were younger than age thirteen at first sexual intercourse, and by twelfth grade, 65 percent of students have become sexually active. Sexual risk increases with the number of partners and the failure to use condoms. In the YRBS data, about 16 percent of high school students report having had sex with four or more partners; 48 percent of adolescent African-American males report four or more sexual partners. Forty-two percent of sexually active respondents did not use a condom at last intercourse.

HIV can be transmitted through the following routes in Nigeria

Heterosexual sex

Approximately 80 – 95% of HIV infections in Nigeria are as a result of heterosexual sex (FMOH, 2002). Factors contributing to this include a lack of information about sexual health and HIV, low levels of condom use and high levels of sexually transmitted disease. Women are partially affected by HIV. In 2009 women accounted for 56 percent of all adults aged 15 and above living with the virus.

Blood transfusions

HIV transmission through unsafe blood accounts for the second largest source of HIV infection in Nigeria (FMOH, 2002). Not all Nigerian hospitals have the technology to effectively screen blood and therefore there are risks of using contaminated blood. The Nigeria Federal Ministry of Health has responded by backing legislation that requires hospital to only use blood from the national blood transfusion services, which has far more advanced blood-screening technology.

Mother – to - Child transmission

Mother to child transmission remains the main mode of transmission of HIV in children. Each year around 57, 000 babies are born with HIV (FMOH, 2002). A total of 700, 000 children were newly infected in 2003. Transmission may occur during pregnancy, delivery or breastfeeding. Studies have shown that some specific interventions help to reduce the transmission to the baby (UNAIDS, 2013). According to UNICEF (2010), the number of children living with HIV infection is estimated at 13 million with 33.8 million deaths since the epidemic began; each year, approximately 2.4million infected women give birth and 1,800 infants acquire HIV infection every day. It is estimated that 360, 000 children are living with HIV in Nigeria, most of who became infected from their mothers (FMOH, 2002). This has increased from 220, 000 in 2007 (FMOH, 2008). According to this report; 57, 000 babies are born every year with HIV, by 2013 -14 these children including those born earlier will enrol into primary school with uninfected children.

In 2005, estimated 38.6 million people worldwide were living with HIV (UNAIDS 2005), 24.5 million were in sub-Sahara Africa (African focus, 2006). Nigeria had 2, 900, 000 people living with HIV, out of which 1, 600, 000 were women aged more than 15 years, 240,000

were children aged less than 15 years, while 1, 000, 000 were men (Global AIDS Facts: 2005). The rate of new infections will also affect the rate of heterosexual transmission and transmission from mother to child.

HIV transmission through sharing of non-sterile sharp instrument

Communicable diseases are characterized by the existence of living infections agent such as virus, recketle bacteria, protozoa fungi or helminthes, which has the ability to multiply, emerge for the host reach a new host and infect the new host (Lucas & Gilles, 2003). The route through which an infectious agents is transferred from one person to another or from the reservoirs to a new host include contact, skin penetration (inoculation) ingestion and transplacental transmission between mother and the fetus (Lucas and Gilles, 2003).

HIV transmission through sharing of non-sterile sharp instrument (e.g. those used for barbing clippers both manual and electronics), contaminated objects like razor, tooth brushes, broken bottles, knives, scissors are all given less attention to the campaign against the spread of HIV. A simple nick cause by clipper or razor blade is enough for the infection to occur (Biadgelegn 2012, Arulogun and Adesoro, 2009). Specific HIV-risk of barbering procedure relating to HIV transmission has been documented in Nigeria and other African and Asia countries. (Ashraf, Farwa, Muhammed, Muhammed and Saira, 2010; Zewudie, Legesse and Kurkura, 2002; Salami, Titiloye, Brieger and Otusanya, 2006).These authors reported high incidence of accidental cuts on scalp and poor hygienic practices, including low disinfection rates of re-usable instrument. The study on the Barber's activities in Uganda by David, James, et al (2011) showed that the frequency and quality of instrument disinfection practices of barbers in relation to HIV prevention was not satisfactory. The instruments used were razor blades 46 (76.7%), manual clippers 26 (43.3%), smoothers 48 (80.0%), scissors 34(56.7%) and electric clippers 48 (80%). Clippers were sterilized in 4 (6.7%) and disinfected in 44 (73.3%), while no decontamination was carried out in 8 (13.8%) sessions. Air fresheners/after-shave were used in 31 (52%) of the disinfections, a disinfectant not recommended for HIV inactivation.

Studies from other countries have proven that razor blade sharing and shave from barbers has been identified as a key risk factor for HBV spread in Italy and for HCV and HIV among psychiatric patients in Japan, Egypt and Pakistan (WHO/UNICEF, 2009; WHO/UNAIDS, 2010). Study on potential risk of HIV transmission in barbing practice among professional barbers in Ibadan revealed that clippers and razors are major sharp instrument for HIV transmission (Biadgelegn, 2012; Arulogun, and Adesoro, 2009). The authors also reported that skin damage is the prerequisite for inoculation of the scalp with HIV to occur. It occurs during barbering either as an accidental cut or abrasion as a result of blade-to-skin contact or both.

Adolescents' attitudes towards HIV/AIDS

According to Parks (2008) attitudes are relatively enduring organizations of beliefs around an object; subject or concept which predisposes one to respond in some preferential manner. An attitude is a hypothetical construct that represents an individual's degree of like or dislike for an item or issue. Attitudes are generally positive or negative views of a person, place, thing or event (Microsoft Encarta, 2009).

Attitudes towards HIV/AIDS can be conceptualized as disposition of an individual, group or community or physical, emotional, mental, physiological, spiritual legal and societal dimension of sexuality. This could be improved through appropriate sex education. Basanvanthappa (2009) defines attitudes as 'a disposition or opinion that predisposed a person to a habitual manner of action'. According to Park (2008) attitudes are acquired characteristics of an individual that are not learnt from textbook but are acquired by social learning. Once attitude is formed it is difficult to change and it is the responsibility of parents, teachers, religious leaders and elders to ensure that healthy attitude are developed by young people. Attitudes have three components that are the cognitive or knowledge element, the effective feeling element and the tendency to action. One's attitude can be towards persons, things, situation and issues. The actions of individuals reflect habits of thought and established beliefs about themselves and others even in relation to sexuality issues like HIV/AIDS.

Attitudes towards HIV/AIDS are person's belief about HIV/AIDS shown by a person's behaviour. This attitude is determined by multiple influences, which include parents, societal norms, friends, teachers, environment, and culture in individuals. There is need to critically examine thoughts, behaviours and sometimes to adapt beliefs to new realities that all result in positive change of attitudes towards people living and families affected by HIV/AIDS. The resultant positive attitudes will subsequently influence behaviour practices positively (Onuzuike and Eze-Ufodiama, 2012) A review on the effect of school-based drama interventions in health promotion for school–aged children and adolescents revealed positive effect mostly concerning knowledge and attitudes related to health behaviour (Joronen, Rankin and A˚stedt-kurki, 2008). Therefore there is need for well-designed and theory-based studies that address drama interventions in health promotion for children and families.

Focus group discussion with young people in Nigeria carried out by the Federal Ministry of Health and Social Services (1992) have shown that high percentage of young people do not support premarital sex. However, 24 to 40% of them were found to be sexually active and 22% had their first sexual experience through rape or coerced sex. In a study conducted by Action Health Incorporated (1996), it was found that 56% of Nigerians are below 20 years and the median age at first sexual intercourse for the girls was 16 years. However, 60% of the youths do not know that pregnancy is possible at first sexual intercourse and teenagers accounted for 80% of unsafe abortion complication (Action health Incorporated, 1996; Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru, 2007). Tobin and Okojie (2010) also found that 58% of the respondents in their study felt infected persons should not be allowed to stay in the community while 61 % agreed to continue a relationship with an infected friend.

Reduction in high risk sexual behaviour

Study by Peltzer and Philip 2005 in South Africa which measured different aspects of the phenomenon including number of sexual partners in the past year, percentage of men engaging in casual sex, percentage avoiding a sugar daddy and percentage avoiding commercial sex workers; found that those exposed to soul city campaign in South Africa had significant fewer non-commercial and commercial sex workers in the past year.

In Uganda Kim, Kols and Nyakaauru (2004) reported a substantial difference between intervention and control group on the sticking to one sex partner variable (20 vs. 29). The proportion of single women having casual sex decreased significantly (11-3%), although the proportion of single men having casual sex did not change, the average number of casual partner significantly decline 0.29- 0.19.

Study in Zimbabwe by Kim, Kols and Nyakauru (2004) on abstinence from sexual relation yielded positive missed result. Kim et al (2004) reported that those in the intervention group at multimedia campaign were significantly more likely than control to have continued abstinence (32 vs. 22), and to have said no to sex (53 vs. 32%). Peltzer et al (2005) reported significant increase in both intervention and control group for changing from sexual practices to abstinence. Tobin and Okojie (2010) pointed out that of all 358 respondents in their study, 76% were against extra-marital relationships, 86% were against pre-marital sexual relationships and 262 73.1% felt at risk of contracting AIDS if they engaged in unprotected intercourse. A study among 600 adolescent secondary school students in Benin, found that, 88% had heard about AIDS, and showed positive attitudes towards HIV/AIDS campaign strategies (Imogie, Iweze and Egbochuku, 2002).

A Thailand based study, found substantial significant difference between those exposed to Thai audio drama campaign and those unexposed (68 vs. 48%) for women, 65 vs. 47% for men. In the same study significantly more women than men talked with their spouses about AIDS after the campaign than before 43-86% for women, 66-78% for men but no significant difference from control group (Elkins, Maticka-Tyndale, Kuyyakanond, Kiewying, Anusornteerakul, Chantapreeda, and Haswell-Elkins, 1996). School based randomized controlled trial of an HIV/STIs risk reduction intervention for South Africa adolescent averaged over three months follow- up showed significant effect on HIV/STI sexual risk reduction among South African adolescents in the earlier stage of entry into sexual activity. Shittu, Zachariah, Ajayi, Oguntola, Izegbu and Ashiru (2007) in a related study in Lagos found that about 41% of the respondents were favourably disposed with the used of condom. In a similar study in Ibadan, Omokhodion, Osungbade, Ojanen and Barengo (2007) predicted

that there seemed to be an increasing probability of having ever used a condom with increasing education.

Pathways to HIV prevention among adolescents

Evidence of Benefit of Sexuality Education among Students

Adolescents' knowledge of reproductive Health

Another benefit of sexuality education among adolescents is improvement in the area of knowledge of reproductive health issues. Okanlawon and Asuzu (2011) conducted a study on the effect of peer education on secondary school adolescents' reproductive health knowledge in Saki Nigeria. The study aimed at examine the effect of peer education on school adolescents' reproduction health knowledge in a nurse-led concurrently controlled intervention. Pre and post intervention (Quasi experimental) design was employed. Nurse-led intervention had significant effect on the adolescents in experimental group when compared with control in the area of knowledge of reproduction health issues. The authors concluded that intervention significantly improved the adolescents reproductive health knowledge and recommend for both community health issues and other community health programmes to encourage and empower the adolescents sexuality risk reduction behaviour.

Promoting sexual abstinence

Promoting sexual abstinence is another dimension of sexuality education benefit. Study conducted by Najarkolaeli, Nikinami, Aminshokravi, Tarafian, Jafari and Golabchi (2013) on promoting sexual abstinence intention among female university students of Tehran Iran showed that educational intervention could improve knowledge, perceived benefits and self-efficacy of female students on HIV/AIDS. Quasi experimented design was employed for the study. The aim was to determine the effectiveness of theory- based educational intervention for sexual abstinence among female university students and not peer education. The study investigated the effectiveness of an educational intervention but reported also on sexual health knowledge of these university female students. The intervention group received both an educational intervention and routine education while the control group received routine education only. Results revealed significant difference in the intervention group between two time points of before and after intervention with regard to knowledge, perceived

susceptibility and perceived benefit variables tested. At the pre-test the knowledge score was at the intermediate level but at end line a desired level was reached. This was not same in control group. Although there was similarity of the two groups (intervention and control 53 and.59) at baseline, but at follow up there was significant difference between knowledge, perceived susceptibility and perceived benefits after 3 months and also among the intervention group. At pre-test measured knowledge score for intervention group was 3.69 and 4.62 at post-test; while control group was 3.59 at pre-test and 3.53 at post-test. The author concluded that educational intervention could improve knowledge, perceived benefits and self-efficacy of female students on HIV/AIDS.

Benefits of Sexuality Education Interventions

Ajuwon (2005) pointed out that several programmes were implemented by various governmental, non-governmental agencies and individuals targeting different categories of young persons including secondary school students, physically challenged youths, apprentices, and hawkers across the country in order to satisfy their unmet needs. A summary of the nature and outcome of sexuality education programmes targeting students and the out-of-school youths are shown in Tables 2.3 below. Evidence of this improvement can be found using six key indicators. These indicators are listed below:

1. Comfort in discussing sexuality issues
2. Knowledge of reproductive health
3. Perceived self-efficacy to adopt safe behaviour
4. Attitudes towards adopting safe sex behaviour and attitude towards persons living with HIV/AIDS
5. Sexual behaviour
6. Reproductive health outcomes including unwanted pregnancy

Comfort in Discussing Sexuality Issues

Surveys confirm that participation in sexuality education programmes increased young person's comfort level to discuss sexuality-related issues. For example, the number of participants in a rural school-based peer-led sexuality education programme in Oyo state who had discussed a reproductive health issue with someone rose significantly from 182 persons

at baseline to 382 at follow-up (Ajuwon, 2000). Female hawkers trained as peer educators in Ibadan counselled and (or) informed 428 persons on sexuality-related issues (Ajuwon et al, 2003). This is an important benefit given the fact that discussion of sexuality issues is generally considered a taboo subject in Nigeria. The opportunity for open discussion of sexuality issues is also advantageous because it helps many young persons clarify doubts and misconceptions they have about sexuality.

Knowledge about Reproductive Health

All the projects reviewed in this paper found increase in knowledge and understanding of reproductive health issues among programme beneficiaries (Osowole, 1998; Fawole et al, 1999; Ajuwon, 2000; Brieger et al, 2001; Ajuwon et al, 2003; Oladepo et al., 2003; Ajuwon, 2005). For example, students who participated in the peer-led sexuality education programme of the West African Youth Initiative (WAYI) implemented in selected states in Nigeria and Ghana during 1995-1997 had superior mean reproductive health knowledge score (8.6) than comparison group (7.3) (Brieger et al, 2001). This improvement is not only encouraging but also desirable because acquisition of knowledge is usually the first stage in the process of behaviour change. However, knowledge alone is often not sufficient in itself to produce change in sexual behaviour in most people (Coates, 1991).

Perceived Self-efficacy to Adopt Safer Sex Practices

Perceived self-efficacy (PSE) is someone's perception of his/her ability to carry out behaviour. Bandura in 1969 developed this concept and it has been increasingly applied in several surveys to gauge the extent to which young persons have the ability or confidence to adopt safer sexual behaviours including abstinence, purchase of condom, distribution of condoms, and use of condoms (Ajuwon, 2005). According to this theory the higher a person's PSE to adopt safer sexual behaviour the higher the probability that he/she will actually put into practice such behaviour. Thus, intervention programmes must stress not only the cognitive aspect of learning but also boost young persons' confidence to perform safer sex practices. Studies show that programme beneficiaries have acquired higher PSE to adopt safer sex practices including use of contraceptive and to adopt abstinence and use of condoms (Brieger et al, 2001; Ajuwon, 2000). For example, PSE scores with regard to

condom use among students participating in a sexuality education programme in rural schools in Oyo state rose from 10 at baseline to 13 at follow-up. The scores of their counterparts who did not receive sexuality education declined from 11.1 baseline to 10.9 at follow-up (Ajuwon, 2000). Similarly, PSE scores of experimental high school students involved in the WAYI project were superior (3.27) to those of their counterparts who were in the control group (2.17) (Brieger et al, 2001).

Change in Attitude

Another benefit of sexuality education among young persons is positive change in attitude towards use of contraceptives and to persons living with HIV/AIDS (PLWHA). As shown in the study by Fawole among high school students in Ibadan, more programme beneficiaries (79%) expressed positive attitudes towards PLWA after exposure to sexuality education than control group (14%).

Sexual Behaviour

One of the significant benefits of sexuality education is its positive effects on sexual behaviour of young persons. Some of the positive behaviours attributable to sexuality education included reduction in number of sexual partners; increase in use of condoms (Oladepo et al, 2003; Esere, 2008; Ajuwon, 2005; Ajuwon, 2000; Fawole et al, 1999; Osowole, 1998). Out of school youths who participated in a community-based sexuality education programme in Oyo State reported significant increase in use of condom from 14% at baseline to 25% at follow-up (Ajuwon, 2005). Students who received sexuality education implemented by both peer educators and teachers reported significant increase in the use of condoms (from 20.8% to 53.1%) (Ajuwon et al., 2003). The WAYI project led to significant increase in use of non-prescriptive contraceptives (condoms and spermicides) among students but not with the out-of-school youths. Sixty-percent of students who participated in the programme reportedly used modern contraceptives compared to 45% of comparison group (Brieger et al, 2001).

Positive Reproductive Health Outcome

An important positive reproductive health outcome from a recently concluded sexuality education programme among secondary school students in Osun State was reduction in

school drop-out rate due to unwanted pregnancy. The study by Adegbenro (2004) showed a decline in proportion of students who dropped out of school from 13% to 4% among students who participated in a sexuality education programme compared to an increase from 11% to 25% in comparison schools. The sexuality education programme organized by Fawole and others (2004) among female apprentices in Ibadan led to significant reduction reported in incidence of physical assault (from 65% at baseline to 23% at follow-up); the proportion of apprentices who sought help during episodes of gender-based violence rose from 40% at baseline to 73% at follow-up. The table below show a summary of benefits of interventions among students.

Table 2.3: Summary of Evidence of Benefits of Sexuality Education among Students

Author	Target group	Nature of intervention	Outcome
Osowole, 1998	Physically challenged boys & girls	Training of peer educators	1. Increase in discussion on reproductive & sexual issues 2. Reduction in reported cases of unwanted pregnancy during programme 3. Reduction in sexual partners
Fawole et al, 1999	High school students	Six weekly educational session by researchers	1. Positive attitude to PLWHA 2. Increase in use of condom 3. Reduction in sex partners
Oladepo, 1999	Male high school students	Peer education	1. Increase in knowledge on HIV/AIDS 2. No effects of use of condoms
Ajuwon, 2000	Male and female high school students	Peer education	1. Increase in reproductive knowledge 2. Improved self-efficacy to use condoms
Adegbenro, 2004	High school students	Peer counselling, teacher training	1. Increase in knowledge of reproductive health 2. Reduction in drop-out rate due to pregnancy
Najarkolaeii, Nirnami, Aminshokravi,	Female University students	Quasi- experimental design	1. Improved knowledge, perceived benefit and self-efficacy of female students

Tarafian, Jafari and Golabchi, 2013			regarding HIV/AIDS
Chi, Winter and Mecus, 2013	College students	Use diverse teaching methods, 6 educational session over a period of 9 weeks, period of about sexual health knowledge and attitude at baseline, post-test and follow up	1. Increase sexual health knowledge (Reproductive health contraception, condom use and HIV/AIDS) 2. Positive attitude towards sexual minorities
Walsh and Word (2010) in their study	Undergraduate students male and female	Investigated 579 on the relationship between magazine reading and yours people sexual health knowledge	1. Subject were more of female than male 2. Age range 16-26 years 3. Females recorded higher sexual health knowledge than males
Okanlowon and Azuzu, 2011	Secondary School adolescents	Peer education	1. Improved adolescents reproductive health knowledge
Harvey, Stuart and Swon, 2014	High school	Drama in education programmed	1. Improvement in knowledge 2. Increase in condom use.

Adolescents Abstinence from Sex

Abstinence has been identified as the most effective way of preventing HIV infection among young people (Najarkolaei, Niknami, Aminshokravi, Tavafian, Jafari and Globchi 2013). However, the prevalence of sexual abstinence among young people is very low. According to the national HIV/AIDS and reproductive health survey conducted in Nigeria, (FMOH, 2003), less than half of the female (47%) and just over one quarter (27%) of males aged 15 – 24 years reported that they had never had sex. The media age at first sex for females 15 – 24 was

16.9 while for males it was 19.8. Abstinence is an act, which requires strong motivation, self-control and commitment and in the absence of a supportive environment, this is difficult to achieve. Since condom use has continued to face religious, logistic, social and economic obstacle, there is a need to seriously consider abstinence (Adedimeji et al 2005; Isiugo–Abanihe and Oyediran, 2004).

Abstinence offer adolescents in particular, a number of advantages. Sexual abstinence requires no supplies or clinic visits and complete abstinence is the most effective means of protection against HIV/AIDS, unwanted pregnancy and other sexual transmitted infections (STIS). DiIorio, Kelley, Hockenberry-Eaton (1999) reported that the studies of over 400 adolescents clearly showed that where parents, especially mothers, were the major source of sexual information, the adolescents sexual behaviour was less risky. They further observed that those adolescents who reported discussing a greater number of sex-based topics with their mothers were less likely to have engaged in it. Doctors promoting abstinence for teenagers should encourage parents to talk with their children about sex and risk of early involvement in sexual activities.

Prevention of HIV transmission through de-contamination of barbing instrument

Proper, effective and consistent decontamination of barbering instruments is important in preventing HIV transmission in the barbering shops. Surgically, barbering instruments are semi-critical instruments that come into contact with damaged non-intact skin and require at least intermediate-level disinfection to make them safe (Biadgelegn, Belyhun, Anagaw, Woldeyohannes, Moges, Bekele and Mulu, 2012; Cheriyan, 2011; Gardner, 2002). The use of shared blades, clippers and trimmers in barber shops is a common practice and accidental scratching due to playing with sharp instrument among students provides an opportunity for micro-organisms, mainly HIV and other blood-borne pathogens, to enter the body easily and cause serious health problems for the clients (Kitara, Obol, Carlos, Sumayiya and Olido, 2011; Biadgelegn, et.al, 2012). Since there is possibility of skin piercing and accidental injuries to the face or scalp, barber shops may therefore be one of the routes of exposure to HIV infection leading to the deadly AIDS disease currently afflicting the developing countries, such as Nigeria. Methods and agents that have been designed to inactivate other

viruses such as hepatitis B are also effective for HIV. The agents include alcohol (ethanol, isopropyl), chlorine (Sodium hypo chlorate), phenol compounds, and quaternary ammonium compounds iodophores. Some of the spirits used for the disinfection were labelled as 40% alcohol concentration. Several literatures indicate that any alcohol concentration less than 60% could not completely inactivate HIV (Ibrahim, Opara amd Tanimowo, 2007).

HIV on barbering instruments can also be inactivated by using sterilizing agents such as flame, dry heat, cream and ultraviolet light. HIV infected persons despite being asymptomatic, are infected at all stages of infection. Therefore, when dealing with all clients, barbering instruments must always be disinfected or sterilised to minimize the risk of HIV transmission. The concept of universal precaution considers all blood and body fluid to be potentially infectious and all invasive instruments to be potentially contaminated if already used. The responsibility to keep instruments free of infective agents lies on the barbers. There is a major limitation of UV light sterilizers in that it is unable to inactivate viruses when the contaminated sites are not in direct contact with the UV light such as when the contaminant is hidden in the crevices of the clippers (Ibrahim et al., 2007; Ashraf et al., 2010). The use of inappropriate disinfectants such as shampoo, air fresheners and aftershave which were not known to inactivate HIV was a clear indication of the breach of universal protection methods by these barbers. This study was also aimed at reducing risks accruing from this area.

A review of a study which was carried out by Olaitan (2005) who investigated the knowledge and practices of barbers regarding sterilisation of sharp instruments as a means to prevent HIV transmission among a sample of 306 barbers. Findings revealed that majority (99 %) of the barbers were knowledgeable about sterilisation of instruments in their workplace, 64.1% know that HIV transmission is possible through unsterile blades, clippers and trimmers and 87.9% know that unsterile blade can transmit diseases including HIV. Based on the findings, it was recommended, that rules and regulations regarding sterilization of instruments should be adhered to, barbers and other professionals making use of sharp instruments on human beings should undergo some periods of training in health education to improve their knowledge and practices about sterilisation of sharp instruments (Olaitan, 2005).

Arulogun and Adesoro (2009) conducted a study on potential risk of HIV transmission in barbering practice among professional barbers in Ibadan, Nigeria, which assessed precautionary measures for the prevention of HIV among commercial barbers. Data were collected using validated checklist to directly observe ninety barbering procedures in forty-five barber shops randomly selected from three communities that have been categorized as inner-core, transitory and peripheral.

The finding confirmed that the risk of transmitting HIV is high in the barbershops in the study area. Health education strategies such as training, supportive supervision and peer education are recommended to facilitate the adoption of effective precautionary measures against HIV infection among barbers

School as a protective factor

At various ages at school status (10-19.5%) from 1993-1998 in Kenya were not yet sexually active. According to the data from Kenya young women who are out of school engage in sexual activity at early age than those who attend school. Young girls are at the risk of getting infected with HIV for a number of reasons including early marriage, biological immaturity “age mixing” (older men having sex with young girls) and transactional sex. Keeping the girls in school allows them a greater chance to mature and develop the knowledge and skills necessary to protect themselves from HIV/AIDS.

Media campaign and public awareness

As Nigeria is such a large and diverse country, media campaign to raise awareness of HIV is practical way of reaching many people in different region. Radio campaign like the one created by the Society for Family Health are thought to have been successful in increasing knowledge and changing behaviour, “Future Dream” was a radio serial broadcast in 2001 in nine languages on 42 radio channels. It focused on encouraging consistent condom use, increasing knowledge and increasing skill for condom negotiation in single men and women aged between 18 and 34 (Population Statistic International, 2003). In 2005, the campaign was launched in Nigeria in a bid to raise more public awareness of HIV/AIDS. This campaign

took advantage of the recent increase in owners of mobile phones sent text messages with information about HIV/AIDS to 9 million people (BBC News, 2005).

Education and HIV/AIDS prevention

Sex is traditionally a very private subject and the discussion of sex with teenagers is often seen as inappropriate. Attempt at providing sex education for young people have been hampered by religious and cultural objections (28). In 2009, 23% of schools were providing life skill – based HIV education, and just 25% of men and women between the ages of 15 and 24 correctly identified ways to prevent sexual transmission of HIV and rejected major misconceptions about HIV transmission (UNGASS, 2010). Lack of HIV/AIDS knowledge put the adolescents at risk of contracting HIV.

Global success in combating HIV/AIDS must be measured by its impact on our children and adolescents. Are they getting the information they need to protect themselves from HIV infection? Most adolescents know little about HIV prevention. According to UNAIDS/UNICEF (2001), 11.8 million young people (15-24) are living with HIV/AIDS, 7.3 million were young women and 4.5million were young men. Adolescents cannot protect themselves if they don't know the basic facts about HIV/AIDS. Adolescents must know, learn the facts before they become sexually active and the information needs regularly reinforced through schools, communities and the media. It is necessary to maintain continued HIV/AIDS education in order to reach each new cohort of adolescents and to build upon the existing knowledge of all young people. Education makes a difference. Adolescents' knowledge of HIV testing facilities increased with educational attainment. For example studies in Malawi and Tanzania women (15-49 years) on women knowledge of HIV testing facilities revealed that their knowledge increased with education (UNICEF, 2004).

Use of drama in implementing HIV/AIDS risk reduction programme

Use of drama in HIV and AIDS Education enables a sustained experience. Drama enables people to explore personal issues and create a space where people can express their thought, feelings and concern. The characters and the dramatic situations are discussed and remembered long after the performance. It reaches the heart and the mind in a way that

reading a pamphlet or listening to a speech likely, will not. The emotions one feels while watching a theatre scenario, strike people in a unique way and will likely be remembered long after the play ends.

Evaluation of a drama –in –education programmed to increase AIDS awareness in South Africa High School Kwazulu demonstrated improvement in knowledge ($P<0.002$) and attitudes ($p<0.0001$)about HIV/AIDS among pupils receiving the drama programmed when compared to pupil receiving written information alone (Harvey, Stuart and Swan, 2011). These changes were independent of age, gender, school or previous sexual experience. In schools receiving drama programme, sexually active pupils reported increase condom use ($p=0.01$). It is importance to provide resources to sustain such programmed and to obtain stronger evidence of effect or behaviour by measuring changes.

In the study by Vaughan, Rogers, Singhai et al (2000) which was carried out between the 3rd April and 30th May in Tanzania, and aimed at exploring how theatre and drama had been used as a tool against HIV/AIDS, to draw conclusions in terms of strengths and weaknesses and to make recommendations on if or how drama could be integrated in development programmes. The findings revealed that Drama could be integrated in development programme.

Drama, forum and process theatre, music, dance, poetry, storytelling are today tried by community-based organisations all over Africa, by NGOs, development agencies and international donors in a myriad of developmental projects including combating the spread of HIV/ AIDS. As a result, there is widespread awareness about HIV/AIDS both in rural and urban areas, but the HIV prevalence remains high and is rising in most countries (McGill and Joseph, 2006).

Theatre for development (TFD) is a form of theatre that combines research, entertainment and education. Two broad approaches to TFD are the performance-based and workshop-based approach. Within each there are variations based on forms or the degree of engagement with the people, like theatre for the people, theatre with the people and theatre by the people.

Performance-based processes are primarily theatre for the people rather than theatre with or by the people. This was based on assumption that behaviour change would occur when the product is injected into the community. In the cases where TFD has been integrated from the start, such as in the Tuseme programme or in TASO, it has proved to be a strong instrument for behaviour change including sector development. This instrument of social change could be better utilized. Where this behaviour change has occurred it is more likely to have been influenced by the highly participatory approach with the target group. One such "success story" is the Tuseme project of Tanzania, which also has a linkage to an institution of higher education with research capability (Mckee, Bertrand and Becker-Benton, 2004).

A review on the effects of school-based drama interventions in health promotion for school aged children and adolescents by Joronen, Rankin and Astedt-Kurki (2008); Drama, theatre and role-playing are commonly used in health promotion program but evidence of their effectiveness is limited. Approach were four randomized controlled trials and five were non-randomized controlled studies The report recorded some positive changes mostly concerning knowledge and attitudes related to health behaviour. The researchers concluded that there is need for well-designed and theory-based studies that address drama interventions in health promotion for children and families as learning is based on self-reflection and interaction between environment and person.

Youth performing arts entertainment-education for HIV/AIDS prevention and health promotion: practice and research by Glik, Nowak, Valente, Sapsis and Martin (2014), a popular method for many interventions that target adolescents and young adults. This articles documented how this approach was used to educate and influence young people about HIV/AIDS, other sexually transmitted diseases STDs), and other health issues in the United States. A review of literature was followed by a two-phase descriptive study of American youth performing arts entertainment-education programs. First, a quantitative survey was conducted among youth performing arts participants who were attending a national conference on the subject. This was followed by a qualitative survey among adults and youth conference attendees from established HIV/AIDS prevention youths performing arts program. The two approaches provided detailed insight into the characteristics, approaches

and frame works used to create, implement and evaluate these entertainment education efforts. Nine domain that defined the effects and effectiveness of youth HIV prevention entertainment-education intervention are identified and described, including those related to performances, intervention management and audiences. Given the importance of evaluation for success and effectiveness of intervention program, these domains are used to construct a framework for entertainment-education, research and evaluation efforts.

A study was conducted by Pappas-Deluca, Kraft, Galavottiet al (2008) on entertainment-education radio serial drama and outcomes related to HIV testing in Botswana. In this study ''Makgabaneng'' is an entertainment-education radio serial drama written and produced in Botswana to promote prevention of HIV. This effort is part of the national response to HIV/AIDS. Broadcast of serial drama began in August 2001, and two new 15-minutes episodes air each week. The researcher examined the associations between exposure to Makgabaneng and outcomes related to HIV testing including stigmatizing attitudes, intention to be tested, talking with a partner about testing and testing for HIV among 555 sexually active respondents. The four measures of exposure to Makgabaneng were frequently of listening, duration of listening, talking about the program, attentiveness to, and identification with relevant characters. Data were collected approximately 18 months after the drama began airing. Positive associations were found between exposure to the program and intermediate outcomes, including lower level of stigmatizing attitudes, stronger intention to have HIV testing and talking to a partner about testing. The finding suggests that long term exposure to entertainment-education program may be important for behaviour change. The authors claimed that the result of this study is consistent with the result of some other studies on similar target population.

Drama could be an efficient instrument to bring about behaviour change, if guided by skilful facilitators and backed up by an empowering and supportive structure, like a development programme. The use of drama and participatory approaches can also lead to sector development. Further role model projects, like the Tuseme, need to be identified. It is recommended for countries with different social and cultural backgrounds.

Drama for HIV and AIDS Communication for Young Persons

Sexuality and HIV education programmes in both developed and developing world reveal that a good number of interventions (including print, film, video, radio, outdoor media, posters, leaflets, discussion, and dance, interactive theatre/drama) have had some positive effect on attitude, knowledge and sexual behaviour in relation HIV and AIDS (Casale and Hanass-Hancock, 2011; Coates, Richter and Caceres, 2008; Kirby et al., 2007; Peltzer and Promtussananon, 2005; Underhill, Operario and Montgomery, 2007). However, it is still difficult to determine which interventions are more effective or have real long-term impact (Coates, Richter and Caceres, 2008).

Nda (2012) reported that, theatre or drama has, since its inception, been accepted as a profound communicator. Its ability to combine learning and teaching attributes makes it a virile tool of communicating ideas. Nda added that, DramaAidE as a group has used drama in sensitising young people on HIV/AIDS. Mugira (undated) in Nda (2012) reported successful outings in various parts of South Africa. One then wanders why these successes recorded and reported, have not been replicated in other parts of the continent and on various other issues of development. Although various reasons, mostly bothering on finance and the lack of town and gown symbiosis in the continent could be conjectured, this writer in an earlier publication, is of the opinion that

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Myers, Sow, Drobna, Bagheritari and Kompaore (2006) reported that 'when you want to cut wood, you use a saw or an axe. When you want to drive a nail, you use a hammer. The saw, the axe, and the hammer are tools one uses to achieve a given aim. While there are many forms of art that are used as education tools to raise HIV and AIDS awareness, including

print, film, video, radio, outdoor media, posters, leaflets, discussion, and dance, interactive theatre/drama has proven to be particularly valuable in HIV and AIDS education given its special ability to engage and connect with its audiences'. They pointed out that theatre or drama is live and human: it uses voice, speech, language, the body and emotion. It brings life and human reality to the audience as well as players. It makes people think and respond. We are all actors playing different roles in our lives, and the world is our stage. We become different characters depending on whether we are talking to our mother, lying in the arms of a loved-one, making a speech to many, or playing with a child (Myers et al, 2006).

Educational drama is a form of drama where everybody can participate. Role-playing is maybe the best-known form of educational drama, but there are other drama methods. Drama situations in this book are not only for an audience, but also for those who are doing the acting (National Institute for Educational Development [NIED], 2001). Educational drama is not drama as performance art, it is drama used as a learning tool. People learn things in different ways: some learn by listening, some by reading, some by seeing and some by doing. Educational drama may be used to organise something for all these different kinds of learners. Educational drama can be an effective way of learning as it provides opportunities to listen, speak, think, feel, find out and be in the middle of the situations. It provides an opportunity to learn by feeling. Learning takes place during the drama process and after the process. Especially with sensitive issues it is fruitful to have a "hands on" way of dealing with the issue and drama provides a way to have that experience. If one do not know a lot about being very sick or being very afraid, educational drama can provide situations where you can feel and experience something like that. But you can do it safely in the drama, because it is not real life, it is imagined (NIED, 2001).

The positive impact of theatre/drama

When theatre or drama is well used, it can:

1. Grab the attention and interest of a great number of people. This is because theatre is performed live and based on reality. It combines oral communication, physical expression, dance, image, music and song, which work together to maintain people's interest over time.

2. Bring people together to openly discuss a problem.
3. Arouse strong emotions. The whole person is involved when participating in a drama—the mind, emotions, prejudices, and passions; therefore, the experience and learning is not easily forgotten.
4. Be adapted to local realities, because plays can be performed anywhere, at any time and in local languages presenting real life situation.
5. Sensitise a community on priority issues and create collective ownership of individual stories.
6. Promote tolerance and mutual understanding by allowing the audience or actors to experience a different point-of-view or a role. In facing the problems one faces, someone who was previously seen as the other becomes familiar and gains empathy.
7. Encourage participation and self-expression, especially from those who often go unheard.
8. Provide entertainment! Many people learn best while enjoying themselves

Using classroom instruction in implementing HIV/AIDS preventive programme

A number of teaching methods have been subsequently used in teaching in the past, such methods among others include: Lecture, discussion questions and demonstrations. To a large extent, methods to be used are dependent on the teacher and the level of class being taught (Ezeani, 2004). Didactic method otherwise known as classroom instruction or conventional method is a specific tactic of educational process. It involves spoken instruction. Gbodi and Haleye (2006) commented that teachers are central to this method of teaching as they control the content and layout of the entire session. With this method, challenging learner ingenuity and development of cognitive skills is minimal. Some of the multiple didactic methods that could be used include lectures, expert interviews, panel discussions, films, exercises and moderate group discussions. A resource poor setting demands a great deal of teachers in order to bring basic education to the children and to a standard. An AIDS programme taxes the time and talents of teachers even further. All of these must be put into consideration in designing programme in Africa.

If a programme is be faithfully implemented, teacher must be properly trained for and committed to it. Two studies mentioned that teachers failed to address some of the major HIV/AIDS prevention issues (Kinsman, et.al, 2001) due to fear of community disapproval, reluctance to disuse sex and HIV, curriculum overload, and preference for doctrinaire instruction. Such reason has been cited as barriers to HIV/AIDS intervention effectiveness worldwide (Applegate, 1998). Two problems are more unique to the Africa setting. The first teacher attrition resulting from teacher transfer, illness, absence, or death (World Bank, 2002).

The reality of life in Africa is that teachers are not immune to disease, including HIV. For examples, in the intervention in Uganda 20 teachers had been transferred and five had died over the course of the 1-year program. In Kenya and Zimbabwe, and Zambia it is estimated that over 1.5% of the teaching population is lost each year to AIDS (World Bank, 2002). Moreover, it has been estimated that over 30 % of teachers in Uganda and Malawi, 20% in Zambia and 12% in South Africa are HIV positive (World Bank, 2002). These posses a barrier to the effectiveness as the intervention may come to a halt when a trained teacher falls ill and dies. Another problem is sexual harassment of students by teachers. One teacher in the study of Kinsman, Nakiyingi, Kamali et al. (1999) was incarcerated for impregnating a female student, and several studies have reported on girls students having their school fees paid by a teacher in exchange for sex (Jewkes and Abrahams 2002; World Bank, 2002).

Ajuwon and Brieger, (2007) evaluated a school-based reproductive health education programme in rural south western Nigeria in which a quasi-experimental study compared the relative efficacy of teacher's instruction alone, peer education alone and the combination of these two on reproductive health knowledge, attitude, perceived self-efficacy and sexual practices among secondary school students in the Ibarapa district of South Western, Nigeria. The overall result showed that students from combination of teacher's instruction and peer education showed more improvement in knowledge, attitude and self-efficacy than their counterparts from peer education alone and teacher instruction alone and control. Therefore, multiple intervention strategies have greater potential of improving reproductive health of the adolescents.

In evaluation of a similar study on reproductive health education and services intervention among out-school adolescences in Oyo State, the finding emphasized the sustenance of the communities enthusiasm to continue to render education and services to the out school adolescents to protect them against HIV infection (Oladepo, Brieger, Ajuwon et.al. 2003)

Responses to HIV/AIDS epidemic in Nigeria

The responses to the scourge of HIV/AIDS in Nigeria have been multi-sectoral and multi-dimensional. It has been a collaborative effort among the Government of Nigeria, International Governmental Agencies, Non-Governmental Agencies, Institutions, Private Sector and people living with HIV/AIDS. Following the report of the first two cases of HIV in Nigeria in 1986, the National AIDS Advisory Committee was established in 1987 (Adeyi et al, 2006). The establishment of the National Expert Advisory Committee on AIDS (NEACA) followed this. The response from Government through this committee was very slow until 1991 when the first attempt at assessing the HIV/AIDS situation was made through a sentinel survey (Egboh et al, 2004). It was not until 1999 when a democratic government was ushered in that HIV/AIDS prevention, treatment and care became one of the government primary concerns.

The Presidential Commission on AIDS (PCA) was formed in 1999 comprising of ministries from all sectors, with the President serving as Chairperson. In early 2000, the National Agency for the Control of AIDS (NACA) with membership including representatives from ministries, the private sector, NGOs and network of persons living with HIV/AIDS was formed. State and Local Action Committees on AIDS (SACA and LACA) have also been formed at the State and Local Government levels (World Bank, 2004). The overall goal of the national HIV/AIDS policy is to control the spread of HIV in Nigeria, to provide equitable care and support for those infected by HIV and mitigate its impact to the point where it is no longer of public health, social and economic concern, such that all Nigerians will be able to achieve socially and economically productive lives free of the disease and its effects (FGN, 2003).

To implement the policy, action plan was prepared with the following specific objectives:

- Increasing sensitization of general population and key stake holders;
- Promoting behaviour change in both low-risk populations;
- Ensuring that communities and individuals are empowered to design and initiate community-specific action plans;
- Ensuring that laws and policies encourage the mitigation of HIV/AIDS;
- Institutionalizing best practices in care and support for people living with HIV/AIDS;
- Mitigating the effect of the diseases on people living with HIV/AIDS, orphans and other affected groups;
- Creating networks of people living with HIV/AIDS;
- Establishing an effective HIV/AIDS surveillance system; and
- Stimulating research on HIV/AIDS.

The Nigeria government is collaborating effectively with International Government Agencies and Non-Governmental Organization (NGOs) to fight the scourge of AIDS. These agencies provide grants, loans, equipment and technical expertise to the Government. These agencies include USAID , UNAID and UNICEF of the United Nations, and World Bank, DFID of the British Government and JICA of the Japanese Government. International NGOs include the Family Health International (FHI), Population Services International (PSI). Significant among the Local NGOs are Society for Family Health (SFH), Association for Reproductive and Family Health (ARFH) (World Bank, 2004). The Nigeria government and the private sectors launched a business coalition called the Nigeria Business Coalition against HIV/AIDS in February 2003 with the aim of facilitating the sharing of information among business organizations and communicating the techniques and strategies that work (World Bank, 2004). The private sector is expected to take active roles by educating their workers and supporting those who are HIV positive as well as contributing to the larger efforts to prevent the spread of the epidemic (Jetter, 2004). Some organizations now have AIDS policy that prohibits discriminations based on HIV-positive among their staff (World Bank, 2004).

Efforts at controlling the epidemic in Nigeria include prevention, treatment of opportunistic infections and antiretroviral therapy as well as care and support for family of AIDS patients

(WHO, 2007 and Gallant, Moore and Chaisson, 1994). Control efforts of HIV/AIDS in Nigeria are still grossly inadequate. For example at the end of 2006, around 550,000 people were estimated to require anti-retroviral therapy of which 81,000 (15%) were receiving the drugs (WHO, 2007). The Nigerian Government is spending an average of N4/person/year on HIV/AIDS against the recommended expenditure if N390/person/year (APIN, 2007).

Need for the school-based health promotion and education interventions:

Studies have shown that early school –based HIV/AIDS risk reduction delivered through schools is one of the ways through which the adolescents can be helped to avoid risk taking behaviours and adopt healthier life styles(Abner, Carlyle, Roberto and Zimmerman, (2007), Kyrychenko, Kohler and Sathiakumar (2006).

For individual and groups to have better health status, there is need to be health informed and empowered to use health information to exhibit positive health attitude and behaviour. There should be a change of attitude and behaviour with the help of a change agent. Health education and health promotion are the two interrelated phenomena that attempt to 'alter people's cognitive and perceptual structures to the extent of bringing about changes in behaviours (MacDonald, 1995). As outlined in primary health care (PHC) programme, health education is an integral part of school health service. It is meant to give the students the opportunity of early development of insight into implication of negative attitudes to issues affecting their health. Through health education, pupils learn how to promote good health, prevent diseases and seek immediate medical attention. Health education has been described in different perspectives and it can take place in a variety of settings such as schools, homes, clinics, churches, mosques, market and working places. School–based health education and promotion are specifically designed to encourage the school children and adolescents to have in-depth knowledge of the determinants of health, promotion and prevention of diseases. It can reach a large population depending on the method used and the prevailing circumstances. Akinsola (1993) described health education as a process by which health information is successfully imparted in such a way that the recipient is motivated to make use of the information for the promotion, maintenance or restoration of his own, his family's or his community's health. The aim of the health education to Lucas and Gilles (1990) is to

encourage people to value health as a worthwhile asset and making people know how they themselves can take actions to promote their health as individuals and that of their communities. This implies that health education is designed to change attitudes and behaviours in matters concerning people's health.

Oladepo (2002) also asserted that health education is a helping, motivating, self–help and self–reliant process and focuses on peoples voluntary and self–imposed health behaviour. According to Oladepo (2002), health education motivates people as individuals or groups in community settings to attain health as a valued asset, achieve health by their own efforts, and make intelligent choice and to make use of the available health services and medical products. On the other hand, health promotion has been described as the process of enabling people to increase control over and to improve their health (Moronkola, 2002). According to Farmer, Miller and Lawreso (1996), health promotion entails the empowerment of individuals and communities in improving their health through education as well as the provision of preventive health services through the improvement of social, physical and economic environment. Commenting on the Ottawa Charter for health promotion, Farmer et al stated that health promotion focuses on equity in health and reduction of differences in health status by ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. According to the Ottawa Charter for health promotion, the five areas of health promotion include:

Building health public policy: This is putting health on the agenda of policy makers in all sectors at all levels which will make them to be aware of health consequences of their actions and to accept their responsibilities for health.

Creation of supportive environment: This involves making effort to assess the impact of technology, work, energy production and urbanization on community health. Work and leisure should be seen and programmed to promote health.

Development of personal skills: Through the provision of information, education for health and skills in the home, schools, work and community settings, health promotion ensure that people have option to have control over their own health and that of their communities.

Reorientation of health services: Health promotion should ensure that health services is a joint responsibility of individuals, community groups, health professionals, health services institutions and government. Health sector should be more interesting in health promotion and not solely on clinical and curative services.

Strengthening community action: This involves empowering the community to make decisions, plan and implement all programmes that have direct bearing on the community's health. The community should be made to utilize the existing human and materials resources in her area to improve the health status .According to Jegede (2002), citing Nut beam (1986) health promotion is more concerned with autonomy of the individuals who work within their social matrices to mutually enhance their own health status within that of the 'neighbourhood'.

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10. Bring people together to openly discuss a problem.
11. Arouse strong emotions. The whole person is involved when participating in a drama—the mind, emotions, prejudices, and passions; therefore, the experience and learning is not easily forgotten.
12. Be adapted to local realities, because plays can be performed anywhere, at any time and in local languages presenting real life situation.
13. Sensitise a community on priority issues and create collective ownership of individual stories.
14. Promote tolerance and mutual understanding by allowing the audience or actors to experience a different point-of-view or a role. In facing the problems one faces, someone who was previously seen as the other becomes familiar and gains empathy.
15. Encourage participation and self-expression, especially from those who often go unheard.
16. Provide entertainment! Many people learn best while enjoying themselves

Theoretical Framework

Theoretical models aids in the description of health related behaviour as well as in planning intervention to change behaviours. Models are derived from theories and so form a sound theoretical framework which provide substantial basis for practice**.** Social Learning Theory (SLT) was adopted to provide clearer explanation of early adolescents' knowledge of basic facts about HIV and AIDS, (causation, mode, of transmission & prevention), attitude towards people living with HIV/AIDS (PLWHA) perceived risk of HIV, self-efficacy skills and risk reduction practices.

Social Learning Theory

The Social Learning Theory (SLT) was developed by Albert Bandura in 1977. Its evolution was originally from behaviours but it has now embraced some of the ideas of cognitivists and this is the reason the theory is also referred to as social cognitive theory (university of south Alabama 2011). Social Learning Theory focuses on the learning that takes place within the social context and asserts, that people serve as models of human behaviour and some people (significant others) are capable of eliciting behavioural change in certain individuals based on the individuals value and interpretation system (Bandura, 1986). It emphasized the importance of observing and modelling behaviours, attitudes and emotional reactions of others. Cherry (2008) in an overview of Bandura's social learning theory noted that the theory is likely the most influential theory of learning and development. Cherry further explained that SLT is rooted in many of the basic concept of traditional learning theory but however Bandura believed that direct reinforcement could not accounts for all types of learning. The theory therefore added a social component arguing that people can learn new information and behaviours by watching other people and this is referred to as observational learning or modelling. It is also known as vicarious or imitation learning which can be used to explain a wide variety of behaviours. In this study observation learning occurred as the student interact with peers in the schools and communities.

The wide application of SLT to health behaviours in relation to disease prevention, health promotion and lifestyle modification for at risk behaviours was documented by Donovan, Jessor and Coasta (1993). Social Learning Theory explaines human behaviour in terms of

continuous reciprocal interaction between cognitive, behavioural and environmental influences. Bandura is of the opinion that behaviour does not occur in isolation but is a response to the environment. Thus, interaction among the person, the environment and the behaviour is termed “reciprocal determinism”. Thus a change in one of these factors impacts on the other two. The theory is behavioural prediction theory that represents a clinical approach to health behavioural change (Fishbein et al 1991). Social Learning Theory, has been widely applied to health behaviour with respect to prevention, health promotion and modification of unhealthy life styles for many different risk behaviours.

Social Learning Theory spans both cognitive and behavioural framework as it encompasses attention, memory and motivation which were evident in the Classroom Instruction and Drama interventions conducted. Boerie (2006), discussing SLT explained the component processes that underlie observational learning as the following: Attention is important for learning to occur and hence anything that dampens attention decreases learning including observational learning. Attractive models create more attention. Similarly, one pays more attention to models that are of resemblance to him/ her. Retention factor looks at the ability of one to remain in the process (e.g. throughout the period of interventions). Participation makes one to remember what he/her has given attention to, and this enables recall. Reproduction factor looks at the ability to translate the images and descriptions into actual behaviour. Motivation looks at the reason for taking actions (Boerie, 2006). It is difficult to do anything except one is motivated. Motivating factors include past reinforcement or promised reinforcement (incentives which can be imagined). Individuals are more likely to adopt a modelled behaviour if it results in outcomes they value.

Three factors have been identified as supporting the learning or unlearning and final adoption or rejection of a particular behaviour in an environment.

- Observational learning
- Self-efficacy or self-confidence perceptions.
- Outcome and value expectancies.

Observational learning within the environment embodies modelling by either peer or elders whose performance of an experience with behaviour influences the adoption or extinction of a particular behaviour. Though the perceived susceptible and severity component of health belief model buttress these by stressing that people will only take prevent measures or action if the perceive that problem and its consequences serious enough to deserve attention and they are convinced that recommended treatment or preventive activities are beneficial and at the same time will pose no overwhelming costs.

In this study of HIV/AIDS and risk reduction behaviour, observational learning occurred as students interact with their peers in the schools or may observe the behaviours of their brothers, sisters, and friends and hear stories and even seeing those who are already infected and affected. These experiences can influence the adoption or extinction of those preceding risk behaviours.

Self-efficacy expectations are personal perceptions of capacity to perform certain behaviour. Outcome expectancies are the perceived results of carrying out a particular behaviour, and value expectancies are the positive and negative assessment of the impact of these results. If a child may assess the negative outcome and value his/her behaviour as unproductive, and destructive, he/she may perceive it as risk and then withdraw or extinguish the behaviour, depending on the value she places on a given outcome. However, the risky sexual behaviours are usually the interaction between the individual, environment and behaviour. The environmental factors like family structure and family size could influence the adolescents' sexual behaviour positively or negatively This study was based on the strength of this theoretical model to increase HIV/AIDS knowledge, bring about positive change in attitudes towards HIV and AIDS, increase perception of risks, self-efficacy skills and reduce risk behaviours among in-school adolescents.

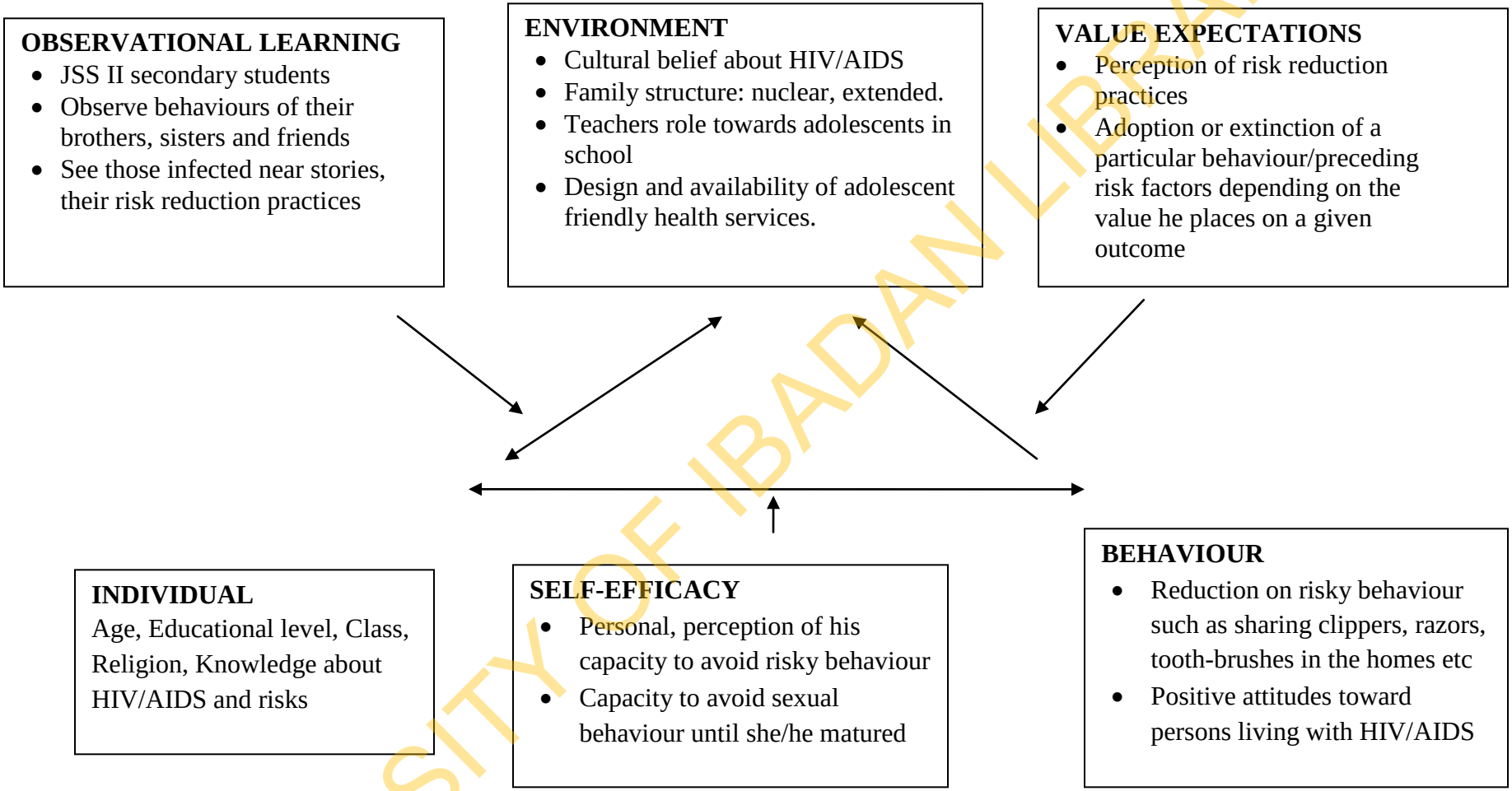

Figure 2.3: Application of Social Learning Theory to School HIV/AIDS risk reduction intervention

Summary of literature review

The purpose of the study was to determine the effect of two educational interventions. Classroom Instruction (CI) and Drama (DR) based communication on HIV/AIDS knowledge and risk reduction practices among adolescents in Orlu Zone Imo state. In order to achieve the stated purpose, review of related literature was carried out. Pertinent literatures were reviewed in relation to variable of interest and together with the concepts; theoretical/conceptual framework that linked the variables.

From the literature reviewed, the global overview of HIV new infections among adolescents is worrisome (UNAIDS/WHO 2006; sentinel survey 2013).

1. Several strategies have been tried to reduce the increasing prevalence rate, but have not yielded convincing results.
2. Literature reviewed showed that adolescents and youths are among high risk group (Maticka- Tundale, 2006, CDC, 2004) of HIV infection (UNAIDS/WHO 2006)
3. Most new cases are found among the adolescent especially in Sub-Sahara African (UNAIDS 2006) where over 40% of the global cases are found in most countries in this region.
4. Their risk behaviours make them susceptible to sexual health problem such as STI and HIV.
5. Literature reviewed in various studies that evaluated school- based HIV/AIDS risk reduction interventions proved to be an important aspect of reducing the spread of HIV, STIs and other health problems (Fisher and Fisher, 2000)

A systemic review of school- based sexual health intervention to prevent STI/HIV in sub-Saharan African among adolescent by Paul-Ebholemhin, Poolbalan and Teijlingen, 2008) reflected the paucity of published studies conducted relative to the magnitude of the HIV epidemic in Sub-Sahara Africa. Knowledge and attitude related outcomes were the most associated with statistical significant change. They concluded that there is need in Sub-Sahara African for well evaluated and effective school- based sexual health intervention.

A number of studies reviewed indicated that school based HIV/AIDS prevention and sex education programme may successfully increase students' knowledge on AIDS, change attitude towards risk behaviour, delay onset of sexual intercourse (Tucker, 2012 Sharma 2010, Paul-Ebholimhem et.al, 2008)

Osomole and Oladepo, (2000) Oladepo, Brieger, Ajuwon et.al., (2003),and Ajuwon and Brieger (2007) in their various studies in Nigeria found some increase in sexual health knowledge, attitude, self-efficacy and behaviour among out- of- school adolescents.

Review of the effectiveness of mass communication program to change HIV/AIDS related behaviour in developing countries showed positive impact of mass media on knowledge of HIV transmission and reduction of high risk sexual behaviour (Bertand, Revilly et al, 2000)
Most recent published reviewed literature on the effect of school- based drama intervention in health promotion for school- aged children and adolescents showed some positive effect, mostly concerning knowledge and attitudes related to health behaviour (Joroney, Rankin and Astedt-Kurki, 2008; Glik, Nowak et al, 2014; Harvery, Stuart & Swan, 2002; Pappa-Deluca, Kraft Galarotti et al, 2008)

The researcher observed that most of these studies reviewed were school- based and had adolescent as their subjects but were carried outside Nigeria. Some of the evaluation had serious flaws either in design or in analysis. Some are not theory-based, not randomised, not controlled. These reduced the number of studies whose results could be interpreted with confidence, that is, effectiveness could not be determined. With the above limitation the results reported support the conclusion that the school-based HIV/AIDS prevention intervention targeting adolescent can be successful in changing knowledge, attitude and under certain conditions behaviours, using effective strategies. It is against this background that the present study was designed to evaluate the effect of two educational interventions on HIV/AIDS knowledge and risk reduction practices, and determine which of the two is more effective in communicating HIV/AIDS.

CHAPTER THREE

METHODOLOGY

Study Design

The study design was a quasi-experimental (see Table 3.1) which involved 165 students from three randomly selected co-educational secondary schools to evaluate school–based HIV/AIDS and risk behaviours reduction interventions among adolescents in Orlu Senatorial Zone, Imo State.

Variables and Measures

- Independent variables – Demographic characteristics of study participants such as age, sex, religion educational level.
- Dependent variables:
  a. Knowledge of HIV/AIDs (causation, transmission, risk reduction practices)
  b. Attitude to HIV/AIDS
  c. HIV prevention Self- efficacy skills and
  d. HIV Risk- practices among secondary school adolescents

Table 3.1: Description of the design of the study

Groups	Measurements			
	Baseline	**Interventions**	**Mid-term**	**Follow-up**
Experimental group 1 (Classroom Instruction)	O_1	X_1	O_4	O_7
Experimental group 2 (Drama)	O_2	X_2	O_5	O_8
Control group	O_3	--	O_6	O_9

Description of study area

Imo State was created on February 3, 1976 out of the old East Central State by the then regime of General Murtala Mohammed. Abia State was carved out of Imo State in the state creation exercise of 1991. It has Owerri as its capital city. Other major towns are Okigwe, Oguta, Nkwerre, Orlu, Mbaise, Mbano, Mbieri, Ideato, Awo-Idemili, Ohaji, Obowo, Ngor-Okpuala, Uzoagba, Emekuku, Orodo, Mgbidi. Situated in south eastern Nigeria, Imo State covers an area of 5,530 square kilometres. Imo State shares boundaries with Enugu and Ebonyi States to the north, Anambra State to the west, Rivers State to the south and in the North and Rivers State to the South, Cross River and Akwa Ibom States to the east. The inhabitants of Imo State are Igbo. The official language of the state is Igbo alongside English. Imo State has a rich cultural heritage. This is manifested in dressing, music, dance, festivals, arts and crafts.

Imo State derives its name from Imo River, which takes its course from the Okigwe/Awka upland. It lies within latitudes 4°45'N and 7°15'N, and longitude 6°50'E and 7°25'E. Imo State has many rivers. The main rivers in the State are Imo, Otamiri and Njaba. The major lakes are in Oguta and Abadaba in Obowu local government area. The main streams draining the state are Imo, Otamiri, Njaba and Orasi rivers, all of which have very few tributaries. With the exception of Imo River, which runs through the area underlain by the Imo State, other rivers rise within the coastal plain sands. Generally, river valleys constitute the major physical features, which are often marshy. The vegetation is tropical rain forest. Imo State indigenes are predominantly Christians of different denominations, but mostly Catholicism. Some people in the state still practice traditional religions.

Economy

Imo State is blessed with abundant natural resources. These include crude oil, lead, zinc, white clay, fine sand, limestone and natural gas in commercial quantities. The State also produces agricultural produce such as palm produce, cocoa and rubber. The main staple crops are yam, cassava, cocoyam and maize. Learned professionals, entrepreneurs and seasoned artists also abound in the State. Works of art produced in the State include, carved

doors, walking sticks of different designs, sculptures, flutes, wooden mortars and pestles, gongs, and the famous talking drums. Metal works and various types of fabrications are locally produced. Some art and cultural centers include: The Mbari Cultural Center at Owerri, Eke Nguru in Aboh Mbaise and lgwekala Shrine in Umunoha are traditional art and craft centers that depict the culture and heritage of the lgbo people.

Industries include Fuason Industries, Owerri, which produces galvanized iron sheets, the Afrik Enterprises, Awo-Omama, a pharmaceutical company and Imo Concord Hotel, Owerri. Industries that had been partially privatized include Card Packaged Industry, Orlu, Resin Paints Limited, Aboh Mbaise and Aluminium Extrusion Industry, Inyisi. Industries in the private sector include Sab Spare Parts and Allied Accessories, Okigwe, which make motor-spare parts, Oma Pharmaceutical, Awomoma, which produces drugs and medicines and Magil Industries Atta, which makes steel, sponge, bread, polythene and paper. Economic trees like the iroko, mahogany, obeche, gmelina, bamboo, rubber palm and oil palm are in abundance.

Tourism

There are many traditional festivals observed in the State. Each community has different festivals celebrated in honor of ancient deities or to mark an important event in the history of the area. There are different festivals to usher in the harvest season, the most popular being the Ahiajoku Festival, which is observed in all the farming communities. Traditional music and dances include Abiigbo, Ekpe, Ikoro, Okonko, Mmanwu, etc

Orlu Senatorial Zone

The study area was Orlu Senatorial Zone with its headquarters at Orlu, Imo State. Orlu senatorial zone is located 39 kilometres from the State capital, Owerri and covers about 180 square kilometres. The Senatorial Zone is bounded in the North by Anambra and Enugu States. On the East by Okigwe Senatorial Zone and on the West and South by Owerri Senatorial Zone. With the creation of Abia State out of the old Imo State, Orlu township became the second commercial city to Owerri in Imo State. The topography is undulating

with a number of valleys and hills rising above 200 feet above sea level. The vegetation is basically equatorial with a mixture of tropical rain forests in the West of some Local Government Areas. Also found in the area is natural spring water in some of the communities in the area. A greater percentage of the people are farmers while others are skilled workers engaged in trade and some other professions. Majority of the adolescents of the population are students in secondary schools and higher institutions. Orlu Local Government Area which is the headquarters of Orlu Senatorial Zone is gradually being transformed into an industrial area with a number of small and medium scale industrial establishments. Orlu is the commercial nerve centre for Orlu Senatorial Zone and that has contributed to high influx of the people to the Zone. According the 2006 national population census, Orlu Senatorial Zone has a population of 1, 663, 224 (National Population Commission, 2006). The Zone has ten (10) Zonal Education Authorities and there are about 82 public secondary schools with students' population reaching 36, 229 (SEMB, 2010). The zone has one tertiary health institution, one School of Health Technology and a School of Nursing, Amaigbo. Moreover, there is one special school for the handicapped.

Orlu Zone was selected for the study because it has the highest number of Local Government Areas (LGAs) out of all the LGAs in the state (12 out of 27 LGAs in Imo State) as against Owerri Senatorial Zone (9 LGAs) and Okigwe Senatorial Zone (6 LGAs). HIV prevalence status in the Zone (both in site and location) has been consistently high. According to 2008 HIV Sentinel Survey, HIV prevalence in Imo State was 5.6% and within the state, Orlu has 6.3% which is higher than the state prevalence. HIV prevalence among primary school children was 3.5% while that of secondary school was 7.8% (Imo SACA, 2010).

Description of the study setting

The three locations for the study had all the features of areas classified or called typical rural settin; for example, in these locations; people's ability to modify their living conditions is minimal because they do not have the resources to do so. Houses were built of fabricated cement blocks. Dilapidated school building are common features in all these areas.

Low socio-economic status of the residents was another common characteristic given for a rural dwellers (Measure Evaluation/NIPORT, 2006). Many rural dwellers are employed themselves in the informal economy. This could include farming, vending, drug dealing/peddling, domestic work, craft work and petty trading.

The economic status determines the purchasing power, standard of living, quality of life, family size, and the pattern of disease and deviant behaviour in the community (Park, 2009).

Poverty and low level of education in these rural locations may account for risky behaviour of adolescents such as; exchanging of clothes, physical fight; biting; fighting with farm tools; early morning farming activities associated with social habits like alcohol drinking, smoking. The hotel industry is growing in this Zone and are also associated with adolescents risk behaviour. Some adolescents engaged in alcohol consumption and use of other substances, but this is not a common phenomenon in this Zone which is predominantly rural .

Description of the selected LGAs and secondary schools for the study

The general description of the schools at the time when the study was carried out is contained in Table 3.2.

Njaba L.G.A

This L.G.A is one of the twelve (12) local government areas that make up Imo State. It was created in 1976 when Imo State was carved out of Abia State. It is bounded in the North by Mbailolu L.G.A, on the South by Orlu L.G.A, on the East by Oru East and West by Isu L.G.A. It is located about 35 kilometres from the State capital Owerri. A greater percentage of people are farmers while others are skilled workers engaged in trade and some others are civil servants and other professions. They are known for their agricultural produce especially fruit market and share the same climate with Imo State.

The school educational operation is under the Government of Imo State Universal Basic education system of 6-3-3-4 i.e. 6 years of primary school programme, 3 years of junior secondary school (JSS), 3 years of secondary school (SSS) and four years of university programme governed by the State Universal Basic Education Board (SUBEB). Imo State

school children are enjoying free education and health programmes provided by State Government with a conducive environment for learning which covered both the primary and secondary schools in all the LGAs

Njaba L.G.A has 33 public primary and private schools, and 6 secondary schools, with student population of - 23,982, (Males =12670 and Female = 11312). The selected school for the study is Atta Comprehensive Secondary School. It is co-educational secondary school own by the Imo State Government. The school was established in the year 1977 and upgraded to the present status in 1982. It is located about 5 kilometres from the local government headquarters Nnenasa in the centre of Atta community. Total population of students was 730 (male – 328; female – 402) while the population of JSS 2 students from where sample as drawn for the study was 136 students (male – 53; female – 83). The number of teaching staff in the school was 19 (male – 8; female – 11).

The Schools have four classroom blocks, one staff office, one principal office with moderately equipped Science Laboratory and Library equipped by Educational Trust Fund (ETF). Classroom desks were enough for the students.

Ideato South

This local government area covers 89,381 km^2 and it is about 40 kilometres from the State capital. The headquarters is located at Dikena-fia. It is bounded in the North by Isu Local government area, West Ideato by North East part of Anambra and Orlu L.G.A. According to 2006 National Population Commission (NPC) census figures, the total population of the L.G.A. was 159,654 (male – 81,125; female – 78,529) (NPC, 2010).

State	Census 1991			Census 2006	Sex Ratio		Proportion		Rank	
	Male	Female	Total	Total	1991	2006	1991	2006	1991	2006
IMO	1,166,448	1,319,187	2,485,635	3,927,563	88.4	106.8	2.79	2.80	13	14

(Source: National Population Commission [NPC], 2010)

The topography is undulating with diverse erosion sites. Majority of the indigenes are farmers, traders and other professions. The farmers plant both food and economic crops such as yam, cassava, maize, oranges, banana and plantain; they are naturally endorsed with rich agricultural farmland. The ethnic groups are predominantly Igbos although few Hausas are rearing their cattle there. The L.G.A shares the same vegetation & climate with the rest of Imo State.

Ideato South has nine secondary schools, 44 primary schools and other private schools; one of these is owned by the Rochas Foundation Secondary School. There is one general hospital and one Mission hospital and health centres.

The school selected as control for this study is National High School Ntueke, Ideato South. It was established in the year 1960 and upgraded in 1970. The total population of students - 16,662 (male - 10,859 and female – 5803). The school has 12 teachers of 4 males and 8 females. The school has 85 students in JSS 2 (males = 40, females = 45) from which the study respondents were drawn. It is a co-educational secondary school. Some dilapidated classroom blocks were under serious reconstruction at the time of the study. The school has Library block and Science Laboratory but not well equipped.

Oru West L.G.A

The L.G.A was carved out of Oru East. The headquarter is Mbidi, It is about 45 kilometers from the State capital and is bounded on the North by Orsu LGA, East by Oguta East, Oru East and South Orlu LGA. Majority of the inhabitants in the L.G.A are farmers and traders. They are known for their agricultural products and craft making (baskets, local mats, foot brushes etc.) Christianity is dominant religion with Catholic topping the list.

The education system run in sessions from September to August every year and governed by State Universal Basic Education Board (SUBEB). The L.G.A has eight secondary schools, 36 public primary schools and some private schools.

Total population of the eight secondary schools was 26,317 (13,940 males and 12,377 females). The secondary school selected for the study is Nempi Comprehensive Secondary School with population of 1,194 students comprising of 570 males and 624 females. A co-educational secondary school owned by the Imo State Government was established in the year 1980 and upgraded in 1985 having 48 teachers in attendance (38 males and 41 females).

Some classroom blocks were abandoned, two new blocks completed but renovation was ongoing at the time of the study in 2012. The school has Library and Science Laboratory that is not equipped. The school has good sports field. There are no borehole for water and good refuse disposal equipment.

L.G.A has primary Health care facilities that are ill equipped and lack skilled staff. The Governor is presently building new hospitals in all the Local Government Areas (Imo State Ministry of Education, Science and Technology, Statistic Unit, 2011).

Study population

The target population involved male and female Junior Secondary School (JSS) adolescents, from public secondary schools.

Inclusion criteria: The students were chosen based on schools location as rural, co-educational (mixed) and class. These students were also chosen on the assumption that they would not leave school before the end of the study and are sexually naïve and innocent.

Exclusion criteria: The students who were in SSS 1-3 (were not chosen on assumption of exposure to risky sexual practices and that they might leave the school before the end of the study respectively).

Study Variables

Two key dependent variables were derived from the conceptual framework. The first was the school–based HIV/AIDS knowledge and risk reduction. This variable was operationalised through questions asked on**:** knowledge of HIV and AIDS, Knowledge about transmission and prevention of HIV, Awareness of HIV/AIDS and attitude towards prevention of HIV/AIDS. The second was on risk reduction practices which were driven towards reduction of sharing of tooth brush, sharp instruments, unprotected sex, fighting and biting of other students as means of transmission of HIV, perceived risk of HIV/AIDS; self-efficacy and life building skills were also included as preventive measure.

The independent variables are the socio-demographics factor such as age, sex, religion, ethnic, residence, location, family type of the respondents, parents' marital status, educational status and occupation.

Sample size determination

There was no previous study to give an estimate of the prevalence rate on risk reduction practices among secondary school students as relates to contacting HIV through sharing of contaminated sharp objects (e.g. razors blades, clipper, scissors etc). Thus, sample size calculated was based on the knowledge of risk reduction practices from pilot study conducted at Owerri, Imo State. The sample size for this study was determined using sample size formula below (Kasiulevicus et al., 2006)

$$n = \left[\frac{Z_{\left(1-\frac{\propto}{2}\right)}\sqrt{2p_1(1-p_1)} - Z_{(1-\beta)}\sqrt{p_1(1-p_1)+p_2(1-p_2)}}{p_1 - p_2}\right]^2$$

Where; $p_1 = 0.84$ (Proportion of students who had knowledge of HIV/AIDS risk reduction practices through class room instruction)

$p_2 = 0.79$ (Proportion of students who had knowledge of HIV/AIDS risk reduction practices through drama)

$Z_{\left(1-\frac{\propto}{2}\right)} = 1.96$ (Significance level $\alpha = 5\%$)

$Z_{(1-\beta)} = 0.84$ (80% power)

$$n_1 = \left[\frac{1.96 \times \sqrt{2 \times 0.84 \times (1-0.84)} - 0.84 \times \sqrt{0.84 \times (1-0.84) + 0.79 \times (1-0.79)}}{0.84 - 0.79}\right]^2$$

$$= 123.6$$

$n_2 = \frac{n_1}{1-f} = 137.3$ (f =10% i.e non-response)

The calculated sample size got using the above formula was approximated to 138. However, this calculated sample size was increased to 165 to give more room for more students to be recruited for the study and, making allowance for improper completion of the questionnaire and as well as the attrition that may occur during the follow-up.

Therefore the make-up sample size to 165 was for three schools i. e 55 students for (Drama, 55 for Classrooms instruction, and Controls, 55). This means that 165 students participated in the study (see Table 3.1)

Distribution of study population: The schools are:

1. Comprehensive Secondary School, Atta –Njaba Local Government Area.
2. National Secondary School, Ntueke-Ideato South Local Government Area.
3. Comprehensive Secondary School, Nempi-Oru West Local Government Area.

Sampling procedure

Selection of schools

The study was interventional in design. It adopted multistage random sampling technique to select the study respondents. The target group consisted of adolescents in JSS2. In Orlu Senatorial Zone where the study was conducted, there were 10 Educational Authorities (EAs). Of all the 10 EAs in Orlu, nine were in the rural. This nine were stratified into three areas. In each stratum, one EA was randomly selected given a total of three EAs. These represented three Local Government Areas; Njaba, Oru West and Ideato South. In each EA one secondary school was selected using simple random sampling through balloting. Consequently secondary schools were randomly selected from Njaba, Oru West and Ideato

South Educational Authorities (EAs) respectively. The selection is as shown in Table above.3.2a. A total of three secondary schools were studied, one was assigned to each arm of treatment (Classroom Instruction, Drama and control), The sample size is 55 per school.

Selection of students

*Multist*age sampling technique was adopted in which the procedure is as follow:

Stage 1: Co-educational secondary schools in the senatorial zone were categorised into urban and rural schools (see Table 3.2a)

Stage 2: The rural secondary schools were again stratified into 3 EAs

Stage 3: A rural secondary school was randomly selected from each EA through balloting (totalling 3 secondary schools). Consequently the schools selected by balloting were:

1. Comprehensive Secondary School Atta - Njaba Local Government Area,
2. Nempi Secondary School-Oru West.
3. National High School Ntueke - Ideato South.

Stage 4: The three selected secondary schools were randomly assigned into interventions and control groups.

Stage 5: In each selected secondary school, list of JSS2 students were collated from the class register (male/female ratio was given consideration).

Stage 6: From the lists, a systematic technique was used to select 55 students for each school

Location	**Number of secondary schools in each Local Government area**	**Number of school selected for the study**	**Number of Jss 2 Students in each school**	**Number of students selected for Classroom instruction intervention**	**Number of students selected for Drama intervention**	**Number of students selected for Control**

Njaba	6	1	136	1 (55)		
Ideato south	9	1	85			1 (55)
Oru west	8	1	79		1 (55)	
Total	23		300	1 (55)	1 (55)	1 (55)

Table 3.2a Distribution of study population

Table 3.2b: Description of the selected secondary schools (Experimental and control groups)

S/N	Names of schools	OWNERSHIP		Type of School	Status of school when 1st established	Date 1st established	Date upgraded to high school	No. of teachers			Population of students		
		Before	Now					M	F	T	M	F	T
1	Comprehensive secondary school Atta Njaba LGA Experimental school one I	Govt	Govt	Co-educational	Senior commercial school	1977	1982	8	11	19	328 JSS2 53	402 83	730 136
2	NEMPI comprehensive secondary school Oru west LGA (Experimental II)			Co-educational	Senior Junior Secondary School	8th September 1980	1985	20	28	48	570 JSS2 38	624 41	1194 79
3	National High School Ntu eke Ideato South (Control School)			Co-educational	As Private 1966 Secondary School by Engineer Egwu took over by east Central State Government in 1970 and took 1st WASC in 1979	1960	1970	4	8	12	40 JSS2	303	324
											40	45	85

Study implementation

The project was implemented in three phases:

1. Baseline survey/data collection
2. Intervention
3. Evaluation – Immediate post evaluation and Follow-up evaluation

Instruments for Data Collection

Both quantitative and qualitative data collection instruments were used for the study. The instruments were developed using information available from extensive review of literature and instruments used in previous studies school-based strategy for prevention HIV/AIDS risk- reduction behaviour. The initial proposal for this study along with the instruments was subjected to a series of review by the researcher's supervisor, lecturers and students of the Department of Health Promotion and Education. The instruments include qualitative and quantitative instruments

Method of Data Collection

At Baseline

I. Qualitative instrument (FGD)

FGD is an instrument that complements quantitative data (Brown and Benley (undated); Krueger 1988) and was used in this research to identify the issues and local concepts that formed the basis for questionnaire formatting. The main function of the FGDs in this study was to determine local concepts and perceptions that could be used to frame and code the main instrument; the questionnaire.

A discussion guide was developed for the focus group discussion (FGD). The FGD guide addresses basic fact about HIV and AIDS, causation, mode of transmission, prevention, attitude towards HIV and AIDS, people living with HIV AIDS, perceived risk, self-efficacy skills and risk reduction practices (Appendix I). This was pre-tested in a rural school in another local government area but with similar characteristics with schools in the study sites. Six Focused Group Discussions (FGD) sessions were conducted in each school and

coordinated by the researcher and the field assistants (1 moderator, 1 note taker and 1 observer at each session). Random sampling was used to select the participants for each of the group having in mind the homogeneity of the group to allow free flow of information and willingness to participate in the discussions. Sessions were conducted with eight respondents in each group. The time for each session was between 10.00am and 12.00pm and each session lasted for about an hour.

The researcher was present at all the session to supervise the activities. At the start of each FGD, the moderator made necessary introduction that established rapport, thus allowing participants to feel at ease, before explaining the guidelines and procedures. The moderator encouraged all participants to contribute meaningfully to the discussion as there was no right or wrong answers. The languages of communication were English and Igbo.

The information gathered from the FGD sessions was used to develop and improve on the questionnaire which was administered at baseline, mid-term and follow-up. The information obtained at baseline survey was however used to develop the content of the health promotion and education intervention.

II. Quantitative instruments (The questionnaire)

A questionnaire was the basic instrument for the study. The investigator used the FGD findings to develop the questionnaire. The questionnaire was developed after vast literature review and some of the items in the questionnaire were adapted from other related published research studies. The questions were also drawn from previous project which focused on school based reproductive health education programme (FLHE) and Peer educators training manual. The questionnaire was prepared in English language after local issues that emerged from FGD were taken into consideration. The FGD results helped formulate the questions and the coding guide. The questionnaire has earlier been field tested among early adolescents before they were used for the baseline survey. The questionnaires were administered by four trained field assistants to 15 students representing 10% of the study population. The pre-test

was carried out in Okwudor Secondary School, Njaba LGA. The location was of a reasonable distance but has similar characteristic with the study area. This was done to avoid filtration of information to the intervention sites. The questionnaire consisted of 48 open and closed ended questions, divided into eight sections.

The introductory section used by the interviewer to establish rapport with the interviewees, explain purpose of the research, and solicit cooperation. Section A; explained socio-demographic information that supplied information on the independent variable for the study. Section B elicited information on their knowledge of HIV and AIDs, causation mode of transmission and prevention. Sections C Awareness of HIV and AIDs. Section D Attitude of adolescent towards HIV and AID and people living with HIV and AIDS. Section E Risk reduction practices. Section F Perceived risk of HIV and AIDS. Sections G Self-efficacy skills. Section H Life building Skills) (Appendix II).

Validity of the instrument

The project supervisor and other experts in the field of public health validated the instrument used for the study. They vetted the instrument to ensure its appropriateness in relation to language, clarity, adequacy of content and ability to elicit accurate information in relation to the purpose of the study research, question and the hypothesis. Their constructive suggestions and contribution were used to modify the final draft of the instrument.

Reliability of the instrument

The reliability test of the instrument was carried out to determine the internal consistency of the instrument. Two versions of the research instruments i.e. English and Igbo were developed The questionnaires were administered by four trained field assistants to 15 students representing 10% of the study population. The pre-test was carried out in Okwudor Secondary School, Njaba LGA. The exercise was carried out to validate and ensure the

reliability of the instrument. The reliability statistics of the pre-test recorded 0.875, indicating high reliability. Cronbach's Alpha Based on Standardized items was used.

Training of Field Assistants (FAs)

Six Field assistants (3 males and 3 females) were randomly selected from their various institutions based on their previous field experiences and interest. Four of the assistants were university graduates, while the other two were adults who were OND certificate holders. They are fluent in English and Igbo languages. The research assistants were trained for two days on the importance of collecting accurate data and the use of instruments for focus group discussion (FGD) and questionnaires. A time table was drawn for this period, with each day lasting 6 hours (9a.m-3p.m). The training commenced with self-introduction of the trainees, the investigator and the trainee, followed by background of the study and objectives. Contents of the training focused on interview techniques, interpersonal and communication skills. Demonstrations and role play are used to transfer skills. A copy of the instrument was given to each of the trainees to take home and read over for better understanding with the intention that issues generated should be discussed the following day. Two methods were used for the collection of baseline data and both were administered to the JSS II students in the three LGAs chosen for the study. The training was done for data collection at baseline, pre-testing and immediate post-test of the instruments and was redone in form of sensitisation during follow-up period in order to get accurate information from the respondents.

Data collection procedure

Questionnaire administration

An interviewer-administered approach was used to collect data. Prior to the administration, the field assistants checked in respondents to the designated classroom since not all students in JSS II were involved in the study. They were given project tags for identification. The choice is to ensure that this exercise would not disrupt the school activities. The investigator explained the purpose of the study and provided instruction on how to complete the questionnaire. An informed consent was obtained from each participating student. All information gathered was kept strictly in confidence and was used to improve the health

services in the schools. Having received the consent of the eligible study respondents, field assistants administered the questionnaire on them. The activities lasted one day per school. The questions were read out to respondents and explanations were given wherever it was necessary.

Data management and analysis

The investigator checked all the questionnaire for completeness and completed questionnaires were collated. The questionnaires were manually coded and were entered into the computer for analysis. Statistical Package for Social Sciences (SPSS) version 17 was used for analysis. Data entered into the computer were subjected to descriptive (i.e. frequency, mean and standard deviation) and inferential (i.e. Students t-test, ANOVA and chi-square) statistical analyses at p=0.05.

Finally information obtained were summarised and presented in tables and charts. Descriptive statistics was used for comparison of baseline, mid-term and follow-up periods to show differences in responses to each item in the questionnaire. The mean value and standard deviation for the scores were calculated and compared between and within the two groups using the ANOVA. However, these data constituted a repeated measure with three measures per subject (baseline, mid-term and follow-up). Analysis of covariance of follow-up variable, adjusting the baseline value was appropriate. The treatment effect was judged on a t-distribution with degree of freedom to incorporate the variation between the two experimental groups so as to evaluate educational intervention strategies used. In the knowledge scale, one correct answer is = 1 point, and incorrect= 0. Knowledge scores <15 and ≥15 were classified as poor and good respectively; attitude scores <5 and ≥5 were respectively categorised as negative and positive; standard errors (SE) scores <7 and ≥7 were grouped as low and high respectively, while risk reduction practices scores <13 and ≥13 were categorised as positive and negative respectively.

Ethical consideration

Approval for the study was obtained from the Ethical Review Committee of the Imo State Ministry of Education, Secretariat, Owerri (Appendix III). Apart from this, respondents signed an informed consent form which provided information on research purpose and what the data collected was used for. Special care was taken to ensure that there was no false compensation or inducement as a means of recruitment or as a way of keeping the study respondents in the study. Informed consent was obtained from each participant before enrolling them into the study.

However, respondents were given opportunity to withdraw their consent freely during the study. Confidentiality of each participant was maximally maintained during and after the collection of data or information. In order to ensure anonymity of responses,a code number was given to each participant through simple procedure and name was not used on the questionnaire. Information gathered from the respondents was stored in the computer package for analysis by the researcher personally and not accessible to unauthorised person while the questionnaire filled by the respondents were destroyed after the purpose of the study had been accomplished (Appendix IV).

Post Intervention Data Collection

Design of intervention

The baseline data was used to design the content of the interventions which were implemented for a period of two months. The result of the baseline survey revealed some gaps and wrong practices which were used to develop training manuals for the intervention.

Development of training curriculum (Teachers manual) for the training of junior secondary school adolescents on HIV and AIDS risk reduction practices

The curriculum used for the training was developed based on the result of the baseline survey on HIV and AIDS risk reduction. The manual is a resource for teachers and it is meant to familiarise teachers with contents so as to equip them with adequate and appropriate knowledge and skills required to deliver this materials to JSS II students. The manual is

targeted at the two intervention groups (classroom instruction and the drama groups). The manual has six modules for classroom instruction and five episodes for drama interventions. It was expected that the impacted knowledge and skills will lead to a sustainable behaviour in risk reduction practices among adolescents (Appendix V).

Content of the training manual for the Classroom Instruction Intervention

The contents of the curriculum were grouped into six modules. Each module has its own objectives.

Module I contained the introduction to training/climatic setting which includes, weekly lessons, training plan and ground rules were written on the flip charts, e.g. no shouting down of students, no lateness to sessions, no moving out of the class without permission, etc.

Module II had two topics: (1) Basic facts on HIV and AIDS which covered definition of HIV and AIDS i.e. abbreviation of HIV and AIDS, how HIV affects the human body and exercises illustrating how HIV infection weakens body immunity and (2) Targeting adolescents for HIV intervention and evaluation.

Module III had two sessions: **(**1**)** Mode of transmission, discussion on how HIV is spread and how it is not spread followed by group work (2) Signs and Symptoms of HIV and AIDS and evaluation.

Module IV had two topics: (1) Method of prevention of HIV and AIDS. Discussion on how HIV is prevented, how it cannot be prevented, identified abstinence as the only safe option for contracting HIV through sexual intercourse and (2) Misconceptions and stigma of HIV and AIDS and attitudes.

Module V had two topics: (1) Risk and risk reduction practices. Risk practices (playing with sharp objects like broken bottles, knives, sharing tooth brushes, having sex while in school, etc) and risk reduction practices (do not have sex while in school and outside school, avoid blood contact, no sharing of clippers, razor, do not fight or bite other students or siblings, people at risk of HIV) and (2) Knowing who is infected and introduction to HIV voluntary counselling and testing.

Module VI contained three topics namely: (1) Life building skills; definition of life building skills, importance of acquiring life building skills. (2) Components of life building skills such as goal setting, value and value clarification, assertiveness, self-efficacy, refusal skill and negotiation (3) Discussion on the components of life building skills. Students were involved in role play to demonstrate each skill. Evaluations were carried out at the end of each session.

Experimental Group II (Use of Drama)

The content in the training curriculum was used to produce the drama. The drama was recorded in episodes (5 episodes). The drama was pretested with students in a school that has similar characteristics with the study group but far away from the study setting. Some difficult areas were identified and corrections effected before final production e.g. wrong use of words, mannerism, and body movement not synchronizing with spoken words. The drama was developed and pretested to correspond with the level of secondary school children in such a way that will enable them appreciate and comprehend the content at the final production.

The drama production: The scripts based on the same package with classroom instruction (Basic facts about HIV and AIDS, transmission, prevention, attitudes towards HIV and AIDS, people living with HIV and AIDS, self-efficacy skills and risk reduction practices were prepared by the researcher and the editor for production.

Selection of students who acted the drama: The number of actors and actresses required for production were indicated by the producer and mobilized by the researcher. The researcher mobilized the actors and actresses, and chose the location. The producer and his team arranged for the rehearsal days. It took six months to produce the five episodes of the drama series. The drama episodes were videoed; episodes lasted from 10-45 minutes. They are and pre-tested before final production. After final production it was stored in a video compact disk for subsequent projections for experimental group II intervention.

Drama episodes

The content was grouped into five episodes after the formal introduction of the students to the training and climate setting. The introduction includes informing students of the weekly lessons, training plan, goals and objective of the training. The ground rules were written down on the flip chat, examples; no lateness to the sessions, no shouting down of students, no moving out of the class without permission, etc.

Episode 1: *Overview of HIV and AIDS.* This covered explaining acronym or abbreviation of HIV, How HIV affects the human body and reasons for targeting adolescents for the intervention. There was a pictorial illustration of how HIV affects the human body during interactive session.

Episode 2: *Mode of transmission.* This includes how HIV are spread and how they are not spread, part of the body fluid where HIV are found, signs and symptoms of HIV and AIDS. Celebration of birthday party made the video film more interesting but demonstrated some behaviours that predisposed them to high risk of HIV infection. Question and answers ended the episode.

Episode 3: *Mode of prevention.* It covered abstinence, avoidance of contact with blood and blood product, avoidance of sharing of skin piercing object (needles, clipper, razor, scissor, knives) sharing of toothbrush, wearing of gloves and other protective devices when attending to injured persons or giving first aid. How HIV cannot be prevented, touching person who has HIV/AIDS, eating together, staying together etc. Other issues discussed here were attitudes to HIV and AIDS, misconception and stigma.

Episode 4: *Risks and risk reduction practices.* It covered risk practices like playing with sharp object, sharing tooth brushes, having sex while in school or outside the school, fighting and biting, first aid treatment without gloves. Risk reduction practice covered, avoidance of sex while in or outside school, avoidance of taking blood or blood product in the home, not sharing toothbrushes, clippers, razor, and knives. During interactive session, students demonstrated and contributed their own ideas which were not among the variables under study.

Episode 5: Life building skills covered, goal setting, value clarification, refusal, assertive, negotiation skills and self-esteem. These skills were illustrated in the video films and they helped the students to protect themselves against HIV infection. They promote wellness and positive behaviour.

At the end of the intervention, immediate post intervention evaluation was conducted. Three months after intervention, follow-up data were collected to determine the effect of the two educational interventions on HIV/AIDS knowledge and risk-reduction behaviours and determine the method which had significant impact on experimental groups.

Selection and training of teachers

Classroom teachers for the target population were selected for the training. These teachers were three for the three classes of Junior Secondary School student (JSS II). Their selection was to provide more conducive learning environment for the students as they are already familiar with their teachers. These teachers were trained with the approved training manual by my supervisors for 4 days on basic facts about HIV and AIDS (causation, mode of transmission, prevention) Self-efficacy skills, risky behaviours and risk reduction practices. Relevant training methods including demonstration, discussion, group work, role-play and film show were used during training. They were evaluated at the end of the training (Appendixes VI and VII). Upon completion of the training, the teachers were provided with the training manual and other educational materials such as handbills, posters on HIV and AIDS which they used to deliver the content to the students. The teachers were assigned to teach the experimental group I (classroom instruction) for 2 months. A training committee was formed for each experimental group.

Facilitator for the audio-visual drama projection was given 1-day training on how to set up the stage and how to introduce each episode before shooting.

Implementation of intervention activities

These involved two intervention groups Experimental I (Classroom Instruction) and Experimental II (Use of Drama).Control group was not exposed to any intervention. Teachers

for the classroom instruction and facilitator for the drama commenced the implementation of intervention activities after approval was given by my supervisor, as on the scheduled dates for the intervention schools.

Experimental Group I: (Classroom instruction) students were taught 2 hours per day (2 days per week= 4 hours) 11am-1 pm for the period of 2 months (8 weeks). Relevant teaching methods were used to facilitate learning such as group discussion, role play, demonstration, charts, hand bill and posters.

Experimental Group II: (Use of Drama) students were exposed 2 hours per day (2 days per week= 4 hours) 11am-1pm for 2 months (8 weeks). Their interactive session were interesting and innovative as they reasoned out some local issues that were not included among variables been studied e.g. “I will not go to the bush to have sex while in school but I can enter the bush to fetch fire wood for my mother on my way back from school”, other issues are sharing of bathing sponges and buckets.

At the end of the intervention, immediate post intervention evaluation was conducted using the same questionnaire used in collecting baseline data for the three experimental groups. These aided the comparison of the two intervention groups exposed to determine the effect of the intervention program and the control group which was not exposed to any intervention. The effectiveness of the two interventions were measured to determine which one meets the targeted outcomes. This allowed the effect to be attributed to the specific differences between the two programs.

Monitoring and supervision of intervention activities

The teachers for classroom instruction and drama facilitator commenced the implementation of the intervention activities as soon as the approval was given by the supervisor. The study was conducted in Imo State, for quality assurance, the supervisor contracted a lecturer in Imo State University with medical sociology background to oversee the functioning activities of the field work from training research assistants till the end line.

Since the project was based on the use of extracurricular strategy, the investigator and field assistants monitored the training every week to ensure that the sessions went as designed. Weekly meetings were held with each group of teachers and research assistants. During the meetings the investigator reviewed the activities, addressed problems identified such as use of abusive word by teachers during teaching. The principal investigator and two trained field assistants monitored and supervised the programme activities using a checklist. Monitoring indicator which is made up of the observational checklist is attached (Appendix VIII).

Evaluation of intervention activities

A mid-term or immediate post intervention at 8 weeks and follow-up evaluation at 3 months were carried out after intervention. The effects were measured by conducting mid-term and follow-up survey using the same methodology used for the baseline survey.

The follow-up survey measured increase in knowledge of the basic facts about HIV and AIDS, mode of transmission, and prevention; attitudes – positive change of attitudes related HIV and AIDS, to people living with HIV/AIDS; self-efficacy skill, perceived risk of HIV, risk behaviours. Risk reduction practices assessed among the study respondents included:

- Not playing with sharp objects
- Not sharing tooth brushes in the homes
- Not sharing razor blades in cutting nails and clippers for barbing hairs etc
- No fighting and biting fellow school students
- No first aid treatment of other students who sustain injuries during playing or cutting grasses in the schools without a trained health worker.
- Abstinence from sex
- Not having sex in the school and outside the school.

The two intervention groups were measured to determine which of the two: classroom instruction or drama has a positive impact on the participating adolescents. Comparison of the effectiveness of intervention were drawn within outcome categories (i.e. knowledge changes in all interventions) and across outcomes in each intervention. The strength of the

program implementation and methodology were taken into consideration in drawing conclusion among these two intervention methods.

Limitation

In the course of the study some resistance were encountered due to the sensitive nature of HIV and AIDS and as part of the sexuality issues.

Resistance of the Parent's Teachers Association from the onset, in teaching students about sexuality issues (mentioning sexual intercourse, use of condom). They became relaxed when they heard the details of the study which addressed the prevention of HIV/AIDS and risk-reduction practices; like sharing skin cutting objects among the early adolescents and other health benefits of adopting healthier life styles.

CHAPTER FOUR

RESULTS

In this chapter findings of baseline, midterm and follow-up surveys are presented. This includes respondents' socio-demographic characteristics, awareness and knowledge of HIV and AIDS in relation to its mode of transmission and prevention. Findings on attitude towards HIV and AIDS, people living with HIV and AIDS (PLWHA), perception of risk of HIV and AIDS, self-efficacy skills, risk practices reduction and life building skills are also presented in this chapter. Three null hypotheses on the effectiveness of the two interventions were tested for significance.

Socio-demographic information

Respondents' socio-demographic characteristics during the baseline survey are presented in Table 4.1. The mean ages of respondents in Intervention 1 (E1), Intervention 2 (E2) and Control (C) groups were 13.4 ± 1.2, 13.9 ± 1.5 and 13.8 ± 1.2 respectively. Male respondents were in the majority in E1 (60.0%) and followed by control group (50.0%). All respondents (100.0%) in the three study sites were of Igbo ethnic group (100.0%) and Christians of which 60.0%, 49.1% and 69.1% (E1, E2, and control, respectively) professed being Catholics (Figure 4.1).

Table 4.1: Socio-demographic characteristics of the respondents

Variable	Intervention 1 (Classroom Instruction) (N=55) № (%)	Intervention 2 (Use of Drama) (N=55) № (%)	Control (N=55) № (%)	Statistics	p-value
Location					
Rural	55 (100.0)	55 (100.0)	55 (100.0)		
Urban	0 (0.0)	0 (0.0)	0 (0.0)		
Age (in group)					
10-14 years	47 (85.5)	35 (63.6)	44 (80.0)		
15 years above	8 (14.5)	20 (36.4)	11 (20.0)	F=2.344	0.09
Mean ± SD	13.4 ± 1.2	13.9 ± 1.5	13.8±1.2		
Minimum-Maximum	10-16	10-16	12-17		
Sex					
Male	33 (60.0)	24 (43.6)	28 (50.9)	$\chi^2 = 2.960$	0.22
Female	22 (40.0)	31 (56.4)	27 (49.1)	df = 2	
Religion					
Christianity	55 (100.0)	55 (100.0)	55 (100.0)		
Ethnicity					
Ibo	55 (100.0)	55 (100.0)	55 (100.0)		

Figure 4.1: Respondents' Christian religion denominations

Respondents' family history

Most of the respondents, E1 (32.7%), E2 (41.8%) and Control (38.2%) were either in the fifth position and above in their families. Majority, E1 (76.4%) E2 (89.1%) and Control (92.7%), indicated that they are from monogamous family background respectively.

Table 4.2: Respondents' family history and experience of sexual intercourse

Variables	Intervention 1 (Class room Instruction) (N=55)	Intervention 2 (Use of Drama (N=55)	Control (N=55)	Statistics	P Value
Average number of children per respondents' parents					
Mean ± SD	5.3 ± 2.1	6.4 ± 2.6	6.1 ± 2.1	34.776	0.04
Position					
First	13 (23.6%)	6 (10.9%)	5 (9.1%)		
Second	7 (12.7%)	10 (18.2%)	11 (20.0%)		
Third	9 (16.4%)	13 (23.6%)	14 (25.5%)		
Fourth	8 (14.5%)	3 (5.5%)	4 (7.3%)	$\chi^2 = 16.895$	0.39
Fifth	2 (3.6%)	3 (5.5%)	3 (5.5%)	df =16	
Last	14 (25.5%)	17 (30.9%)	14 (25.5%)		
Sixth	1 (1.8%)	1 (1.8%)	3 (5.5%)		
Eighth	1 (1.8%)	0 (0.0%)	1 (1.8%)		
Eleventh	0 (0.0%)	2 (3.6%)	0 (0.0%)		
Family type					
Polygamy	13 (23.6%)	5 (9.1%)	4 (7.3%)	$\chi^2 = 9.580$	0.04
Monogamy	42 (76.4%)	49 (89.1%)	51 (92.7%)	df = 4	
Single parent	0 (0.0%)	1 (1.8%)	0 (0.0%)		

Respondents' experience of sexual intercourse

About 11.0% respondents in E1 experienced sexual intercourse compared with 1.8% and 3.6% in E2 and Control respectively.

Table 4.3: Respondents experience of sexual intercourse

Variable	Intervention 1 (Class room Instruction) (N=55)	Intervention 2 (Use of Drama (N=55)	Control (N=55)	Statistics	P Value
Experience of sexual intercourse					
Yes	6 (10.9%)	1 (1.8%)	2 (3.6%)	$\chi^2 = 4.936$,	0.08
No	49 (89.1%)	54 (98.2%)	53 (96.4%)	df =2	

Respondents' parents' socio-economic characteristics

Table 4.4 presents the socio-economic characteristics of the respondents' parents. Majority of the respondents' parents (E1, 85.5%; E2, 89.1% and Control, 90.9%) in the three groups were married.

In relation to respondents' mothers' educational qualifications, most respondents' mother (E1, 36.4%; E2, 50.9% and Control, 40.0%), had senior secondary school certificate. This was followed by those who had post-secondary (E1, 27.3%; E2, 10.9% and Control, 34.5%). In relation to respondents' fathers' highest educational qualification, most (E1, 29.1%; E2, 54.5% and Control, 41.8%) had post-secondary school qualifications.

Most respondents' mothers (E1, 61.8%; E2, 63.1% and Control, 49.1%) and fathers (E1, 45.5%; E2, 40% and Control, 47.3%) were traders (Table 4.4)

Table 4.4: Respondents' parents' socio-economic characteristics

Variables	Intervention 1 (Class room Instruction) (N=55)	Intervention 2 (Use of Drama (N=55)	Control (N=55)	Statistics	P Value
Mother's education					
None	1 (1.8%)	1 (1.8%)	0 (0.0%)	$\chi^2 = 10.916$	0.20
Primary	11(20.0%)	13 (23.6%)	10 (18.2%)	df = 8	
JSS	8 (14.5%)	7 (12.7%)	4 (7.3%)		
SSS	20 (36.4%)	28 (50.9%)	22 (40.0%)		
Post-secondary	15 (27.3%)	6 (10.9%)	19 (34.5%)		
Mother's occupation					
Trading	34 (61.8%)	35 (63.6%)	27 (49.1%)		
Farming	10 (18.2%)	10 (18.2%)	13 (23.6%)		
Civil servant	10 (18.2%)	5(9.1%)	8 (14.5%)	$\chi^2 = 12.885$	0.37
Housekeeper	1 (1.8%)	2 (3.6%)	4 (7.3%)	df =12	
Nurse	0 (0.0%)	3 (5.5%)	1 (1.8%)		
Evangelist	0 (0.0%)	0 (0.0%)	1 (1.8%)		
Tailoring	0 (0.0%)	0 (0.0%)	1 (1.8%)		
Father's education					
None	4 (7.3%)	1 (1.8%)	2 (3.6%)		
Primary	15 (27.3%)	12 (21.8%)	8 (14.5%)	$\chi^2 = 15.752$	0.04
JSS	7 (12.7%)	8 (14.5%)	6 (10.9%)	df = 8	
SSS	16 (29.1%)	30 (54.5%)	23 (41.8%)		
Post-secondary	13 (23.6%)	4 (7.3%)	16 (29.1%)		
Father's occupation					
Trading	25 (45.5%)	22 (40.0%)	26 (47.3%)		
Farming	15 (27.3%)	9 (16.4%)	7 (12.7%)		
Civil servant	9 (16.4%)	11 (20.0%)	12 (21.8%)		
Housekeeper	1 (1.8%)	1 (1.8%)	2 (3.6%)	$\chi^2 = 30.418$	0.17
Tailoring	1 (1.8%)	0 (0.0%)	1 (1.8%)	df =24	
Native doctor	1 (1.8%)	0 (0.0%)	0 (0.0%)		
Operator	1 (1.8%)	0 (0.0%)	0 (0.0%)		
Pastor	0 (0.0%)	1 (1.8%)	0 (0.0%)		
Electrician	0 (0.0%)	1 (1.8%)	0 (0.0%)		
Hotel attendant	0 (0.0%)	2 (3.6%)	0 (0.0%)		
Driving	2 (3.6%)	8 (14.5%)	3 (5.5%)		
Engineer	0 (0.0%)	0 (0.0%)	1 (1.8%)		
Brick laying	0 (0.0%)	0 (0.0%)	3 (5.5%)		

Awareness of HIV/AIDS among the respondents in the two experimental and control groups at baseline, midterm and end line

The table below describes responses of the respondents on their awareness of HIV/AIDS syndrome. Findings show that high percentages were recorded in E1 and E2 (98.2% and 98.2% respectively) on respondents' awareness of HIV/AIDS at baseline. Despite all the information relating to HIV and AIDS made available to respondents during the interventions, findings from follow-up survey show no significant difference (Table 4.5).

Table 4.5: Awareness of HIV/AIDS among the respondents at baseline, midterm and end line

Variable	Baseline			Mid Term			Follow-up		
Awareness of HIV/AIDS	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Ever heard about HIV/AIDS							52 (100.0)	53 (100.0)	53 (100.0)
Yes	54 (98.2)	54 (98.2)	55 (100.0)	52 (100)	54 (100)	53 (96.4)	0 (0.0)	0 (0.0)	0 (0.0)
No	1 (1.8)	1 (1.8)	0 (0.0)	0 (0)	0 (0)	2 (3.6)			
Source of information about HIV/AIDS (Multiple responses)									
Radio	36 (20.5)	42 (27.3)	48 (19.1)	42 (22.5)	45 (16.0)	42 (19.3)	39 (17.8)	43 (18.9)	46 (20.6)
Television	32 (18.2)	23 (14.9)	44 (17.5)	25 (13.4)	43 (15.3)	37 (16.9)	38 (17.4)	35 (15.4)	33 (14.8)
School mate	21 (11.9)	12 (7.8)	33 (13.1)	17 (9.0)	33 (11.7)	31 (14.2)	28 (12.8)	26 (11.4)	32 (14.3)
Friends	15 (8.5)	19 (12.3)	31 (12.4)	15 (8.0)	9 (3.2)	28 (12.8)	26 (11.9)	27 (11.8)	27 (12.1)
Teachers	37 (21.0)	31 (20.1)	45 (17.9)	88 (47.1)	26 (9.3)	42 (19.3)	45 (20.5)	38 (16.7)	41 (18.4)
Drama	14 (8.0)	7 (4.5)	20 (8.0)	0 (0.0)	120 (42.7)	15 (6.9)	21 (9.6)	27 (11.8)	18 (8.1)
Health workers	16 (9.1)	13 (8.4)	25 (10.0)	0 (0.0)	3 (1.1)	23 (10.6)	20 (9.1)	25 (11.0)	25 (11.2)
Church	2 (1.1)	3 (1.9)	3 (1.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	1 (0.4)
Markets	1 (0.6)	2 (1.3)	1 (0.4)	0 (0.0)	2 (0.7)	0 (0.0)	0 (0.0)	7 (3.1)	0 (0.0)
Hospital	1 (0.6)	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Parents	1 (0.6)	1 (0.6)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)
Confirmation of someone's HIV status									
Cannot tell	6 (10.9)	4 (7.3)	3 (5.5)	7 (13.5)	1 (1.9)	3 (5.7)	1 (1.9)	1 (1.9)	9 (17.0)
Looking skinny	11 (20.0)	8 (14.5)	8 (14.5)	8 (15.4)	2 (3.7)	14 (26.4)	2 (3.8)	1 (1.9)	13(24.5)
Having skin rashes	7 (12.7)	10 (18.2)	3 (5.5)	5 (9.6)	1 (1.9)	2 (3.8)	5 (9.6)	3 (5.7)	3 (5.7)
Laboratory test	31 (56.4)	33 (60.0)	31 (74.5)	32 (61.5)	50 (92.6)	34 (64.2)	44 (84.6)	48 (90.6)	28 (52.8)

Knowledge about HIV and AIDS at baseline, midterm and end line

Findings show a significant increase in knowledge relating to HIV and AIDS. All respondents E1, (100.0%) and E2 (100.0%) were able to define HIV and AIDS at follow-up survey compared with few respondents, E1 and E2 (30.9% and 50.9% respectively), at baseline survey among. There was a slight difference in knowledge scores on reality of AIDS at baseline and follow-up surveys. Findings also show higher knowledge scores on whether a healthy looking person could harbour HIV at follow-up evaluation among the two experimental groups (Table 4.6.1).

Overall knowledge score of HIV/AIDS was compared among the three groups at baseline, midline and follow-up period and significantly E1 and E2 had higher score in knowledge of HIV/AIDS at midline and follow-up ($p<0.05$) compared with baseline results while control remains insignificant (Table 4.6.3).

Table 4.6.1: Knowledge about HIV/AIDS among the respondents at baseline, midterm and end line

Variable	Baseline			Mid Term			Follow up		
Knowledge about HIV/AIDS	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Acquired Immune Deficiency Syndrome	17 (30.9)	28 (50.9)	35 (63.6)	52 (100)	54 (100)	39 (70.9)	49 (94.2)	54(100.0)	34 (64.2)
Infectious diseases	1 (1.8)	1 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	3 (5.5)	0 (0.0)	0 (0.0)	4 (7.5)
HIV Positive	1 (1.8)	1 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	5 (9.1)	0 (0.0)	1 (1.8)	5 (9.4)
No responses	36 (65.5)	25 (45.5)	20 (36.4)	0 (0.0)	0 (0.0)	8 (14.5)	0 (0.0)	0 (0.0)	10 (18.9)
Existence of HIV and AIDS									
Yes	49 (89.1)	55 (100.0)	53 (96.4)	47 (90.4)	53 (98.1)	54 (98.2)	51 (98.1)	51 (96.2)	51 (96.2)
No	6 (10.9)	0 (0.0)	2 (3.6)	5 (9.6)	1 (1.9)	1 (1.8)	1 (1.9)	2 (3.8)	2 (3.8)
Existence of HIV and AIDS in Nigeria									
Yes	54 (98.0)	51 (92.7)	54 (98.2)	50 (96.2)	50 (92.6)	54 (98.2)	51 (98.1)	53 (100.0)	52 (98.1)
No	1 (1.8)	4 (7.3)	1 (1.8)	2 (3.8)	4 (7.4)	1 (1.8)	1 (1.9)	0 (0.0)	1 (1.9)
AIDS as a killer disease									
Yes	50 (90.9)	54 (98.2)	51 (92.7)	51 (98.1)	49 (90.7)	55 (100)	49 (94.2)	52 (98.1)	53 (100.0)
No	5 (9.1)	1 (1.8)	4 (7.3)	1 (1.9)	5 (.3)	0 (0)	3 (5.8)	1 (1.9)	0 (0.0)
A healthy looking person be HIV positive									
Yes	29 (52.7)	32 (58.2)	28 (50.9)	46 (88.5)	40 (74.1)	39 (70.9)	47 (90.4)	48 (90.6)	37 (69.8)
No	26 (47.3)	23 (41.8)	27 (49.1)	6 (11.5)	14 (25.9)	16 (29.1)	5 (9.6)	5 (9.4)	16 (30.2)
Total abstinence from sex till marriage									
True	46 (83.6)	38 (69.1)	50 (90.9)	48 (92.3)	50 (92.6)	44 (80.0)	43 (82.7)	50 (94.3)	32 (60.4)
False	9 (16.4)	17 (30.9)	5 (9.1)	4 (7.7)	4 (7.4)	11 (20.0)	9 (17.3)	3 (5.7)	21 (39.6)

Knowledge about HIV/AIDS transmission at baseline, midterm and end line

Increase in knowledge was observed in respondents' knowledge about transmission of HIV at follow-up evaluation in all the questions items fielded to assess their knowledge. Almost all respondents (E1, 98.1% and E2, 98.1%) at follow-up evaluation indicated that HIV can be transmitted through sharing skin cutting objects with infected person. This was an improvement in knowledge scores when compared with respondents' knowledge scores during baseline survey in both E1 and E2.

Among the respondents, there was a misconception about HIV being transmitted through sharing of tooth brushes with infected person; at baseline high proportion of respondents (E1, 89.1% and E2, 85.5%) indicated HIV could be transmitted through sharing of toothbrush. However, at follow up, the proportion dropped significantly (E1, 7.7%) and E2, 11.3%). The knowledge scores follow similar pattern in the Control at both baseline (89.1%) and follow-up (22.6%). Respondents' knowledge on whether HIV could be transmitted through biting infected person during fighting increased at follow-up in both E1 (96.2%) and E2 (88.7%) compared to baseline result at baseline E1 (90.9%) and E2 (87.3%). Knowledge about transmission of HIV through insect bites (like mosquitoes) among intervention groups show that at baseline, 60.0% and 50.9% (E1 and E2 respectively) indicated that HIV could be transmitted through insect (such mosquitoes) bites. However, at follow up this changed as only 17.3% and 26.4% (E1 and E2 respectively) still held on to this notion. Among the Control group, about fifty per cent (43.6%) indicated that HIV could be transmitted through mosquito bites; this changed a bit at follow up as 39.6% still held on to this notion.

Majority (E1, 92.3% and E2, 96.2%) at follow-up than at baseline (E1, 83.6% and E2, 87.3%) indicated that HIV could be transmitted from infected mother to her unborn child; Control group remained constant (91.0%). Knowledge that unprotected sexual intercourse with infected person could be the means of HIV transmission was still high among respondents in both experimental groups at follow-up just as at baseline. Similar pattern were shown on use of unsterile needles and syringes as a means of transmission at follow-up in both experimental groups (Tables 4.6.2).

Table 4.6.2: Knowledge about HIV/AIDS transmission among the respondents at baseline, midterm and end line

Variable	Baseline			Mid Term			Follow-up		
Knowledge about HIV transmission statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Sharing skin cutting object with infected person									
True	51 (92.7)	48 (87.3)	55 (100.0)	51 (98.1)	54 (100)	53 (96.4)	51 (98.1)	52 (98.1)	50 (94.3)
False	4 (7.3)	7 (12.7)	0 (0.0)	1 (1.9	0 (0)	2 (3.6)	1 (1.9)	1 (1.9)	3 (5.7)
Sharing of tooth brushes with infected person									
True	49 (89.1)	47 (85.5)	49 (89.1)	50 (96.2)	50 (94.3)	53 (96.4)	4 (7.7)	6 (11.3)	50 (94.3)
False	6 (10.9)	8 (14.5)	6 (10.9)	2 (3.8)	3 (5.7)	2 (3.6)	48 (92.3)	47 (88.7)	3 (5.7)
Hand shaking with infected person									
True	15 (27.3)	9 (16.4)	8 (14.5)	8 (15.4)	1 (1.9)	7 (12.7)	4 (7.7)	6 (3.7)	12 (22.6)
False	40 (72.7)	46 (83.6)	47 (85.5)	44 (84.8)	52 (98.1)	48 (87.3)	48 (92.3)	47 (88.7)	41 (77.4)
Biting infected person during fight									
True	50 (90.9)	48 (87.3)	47 (85.5)	46 (88.5)	53 (98.1)	51 (92.7)	50 (96.2)	47 (88.7)	50 (94.3)
False	5 (9.1)	7 (12.7)	8 (14.5)	6 (11.5)	1 (1.9)	4 (7.3)	2 (3.8)	6 (11.3)	3 (5.7)
Insect bites like mosquitoes									
True	33 (60.0)	28 (50.9)	24 (43.6)	6 (11.5)	9 (16.7)	24 (44.4)	9 (17.3)	14 (26.4)	21 (39.6)
False	22 (40.0)	27 (49.1)	31 (56.4)	46 (88.5)	45 (83.3)	30 (55.6)	43 (82.7)	39 (73.6)	32 (60.4)
Touch an infected person									
True	12 (21.8)	11 (20.0)	9 (16.4)	6 (11.5)	6 (11.1)	8 (14.5)	3 (5.8)	5 (9.4)	13 (24.5)
False	43 (78.2)	44 (80.0)	46 (83.6)	46 (88.5)	48 (90.6)	47 (85.5)	49 (94.2)	48 (90.6)	40 (75.5)

Table 4.6.2: Knowledge about HIV/AIDS transmission among the respondents at baseline, midterm and end line (cont'd)

Variable	Baseline			Mid Term			Follow-up		
Knowledge about HIV transmission statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Transfusion with blood from an infected person									
True	54 (98.2)	54 (98.2)	54 (98.2)	48 (98.2)	51 (94.4)	53 (98.4)	50 (96.2)	51 (96.2)	32 (60.4)
False	1 (1.8)	1 (1.8)	1 (1.8)	4 (7.7)	3 (5.6)	2 (3.6)	2 (3.8)	2 (3.8)	21 (39.6)
An infected mother to her unborn child									
True	46 (83.6)	48 (87.3)	50 (90.9)	43 (82.7)	34 (63.0)	47 (85.5)	48 (92.3)	51 (96.2)	48 (90.6)
False	9 (16.4)	7 (12.7)	5 (9.1)	9 (17.3)	20 (27.0)	8 (14.5)	4 (7.7)	2 (3.8)	5 (9.4)
Sexual intercourse with infected person									
True	53 (96.4)	52 (94.5)	51 (92.7)	48 (92.3)	54 (100)	52 (94.5)	52 (100.0)	53 (100.0)	51 (96.2)
False	2 (3.6)	3 (5.5)	4 (7.3)	4 (7.7)	0 (0.0)	3 (5.5)	0 (0.0)	0 (0.0)	2 (3.8)
Sharing toilets									
True	36 (65.5)	43 (78.2)	33 (60.0)	11 (21.2)	6 (11.1)	42 (76.4)	4 (7.7)	3 (5.7)	34 (64.2)
False	19 (34.5)	12 (21.8)	22 (40.0)	41 (78.8)	48 (94.3)	13 (23.6)	48 (92.3)	50 (94.3)	19 (35.8)
Use of unsterile needles and syringes									
True	50 (90.9)	52 (94.5)	48 (87.3)	46 (88.5)	53 (98.1)	55 (100)	52 (100.0)	53 (100.0)	48 (90.6)
False	5 (9.1)	3 (5.5)	7 (12.7)	6 (11.5)	1 (1.9)	0 (0)	0 (0.0)	0 (0.0)	5 (9.4)
Having more than one sexual partners									
True	53 (96.4)	54 (98.2)	50 (90.9)	51 (98.1)	48 (88.9)	55 (100)	47 (90.4)	49 (92.5)	47 (88.7)
False	2 (3.6)	1 (1.8)	5 (9.1)	52 (100)	6 (11.1)	0 (0)	5 (9.6)	4 (7.5)	6 (11.3)

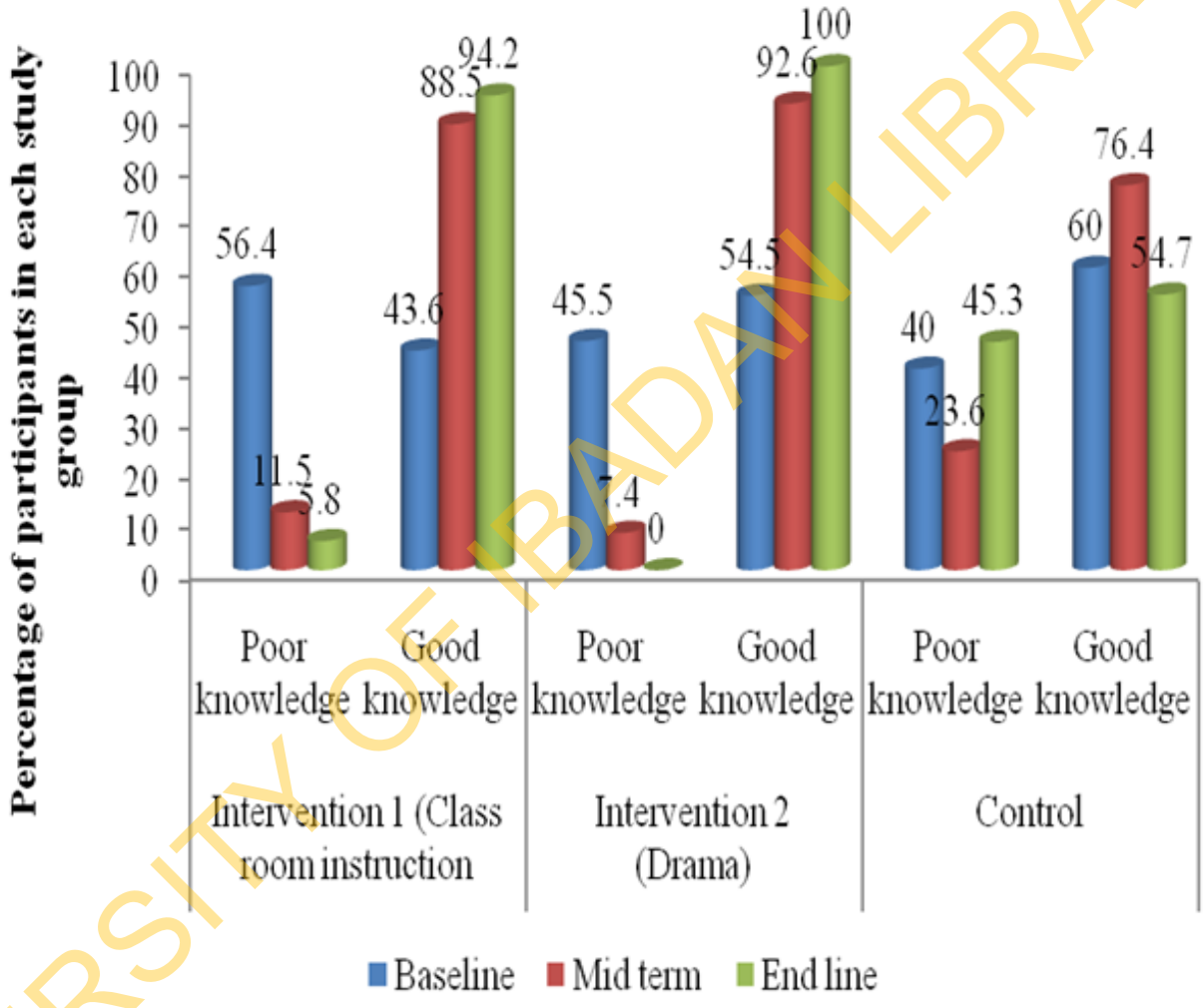

Figure 4.1: Distribution of respondents' knowledge of HIV/AIDS transmission

Comparison of knowledge of HIV/AIDS transmission at baseline, midterm and end line

In comparing knowledge of HIV and AIDS transmission at baseline, midterm and end line, overall mean knowledge score on HIV and AIDS transmission across the study groups show that there was significant increase in knowledge score. On a 21-point knowledge of HIV/AIDS transmission scale, knowledge score increased from 15.2 ± 2.2 and 15.4 ± 2.1 at baseline to 17.6 ± 2.3 and 17.6 ± 1.5 at midterm to 18.7 ± 1.5 and 18.9 ± 2.2 at follow up (E1 and E2 respectively) (Table 4.6.3). Majority of the respondents at follow-up (E1, 94.2% and E2, 100.0%) had increased in their knowledge about HIV/AIDS compared with their score at baseline (E1, 88.5% and E2, 92.6%) ($p<0.05$).

Table 4.6.3: Comparison of knowledge of HIV/AIDS transmission among respondents at baseline, midterm and end line

Study group	Baseline Mean (SD)	Follow-up		Total Mean (SD)	F test (p-value)
		Mid term Mean (SD)	End line Mean (SD)		
Intervention 1	15.2 ± 2.2	17.6 ± 2.3	18.7 ± 1.5	17.1 ± 2.5	40.604 (0.00*)
Intervention 2	15.4 ± 2.1	17.6 ± 1.5	18.9 ± 1.1	17.3 ± 2.2	60.582 (0.00*)
Control	15.8 ± 2.2	16.5 ± 1.9	15.5 ± 2.2	15.9 ± 2.1	13.390 (0.053)
Overall	165 15.5 ± 2.2	161 17.2 ± 1.9	158 17.7 ± 2.3	484 16.7 ± 2.3	47.382 (0.00*)
	1.053 (0.35)	6.002 (0.003*)	64.506 (0.00*)	16.834 (0.00*)	

***** *Significant at p=0.05*

Comparison of knowledge of HIV/AIDS prevention at baseline, midterm and end line

There were marked improvements in the knowledge score on HIV and AIDS prevention among the intervention groups. At follow-up, 94.3% of respondents in E2 were able to state correctly that total abstinence from casual unprotected sexual intercourse is a means of HIV prevention compared to 83.6% respondents who responded to it at baseline survey. Knowledge on preventing HIV through the use of condom correctly and consistently during sexual intercourse was high among E1 and E2 at follow-up (80.8% and 90.6% respectively) compared to baseline (E1, 72.7% and E2, 56.4%). In the same vein, respondents' knowledge about not having more than one sexual partners as means of preventing HIV was high among E1 and E2 at follow-up (88.5% and 94.3% respectively) compared to baseline survey findings (E1, 76.4% and E2, 58.2%) (Table 4.6 – 4.6.2).

Table 4.6: Knowledge about HIV prevention among the respondents at baseline, midterm and end line

Variable	Baseline			Mid Term			Follow-up		
Knowledge about HIV prevention statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Total abstinence from sex till marriage									
True	46 (83.6)	38 (69.1)	50 (90.9)	48 (92.3)	50 (92.6)	44 (80.0)	43 (82.7)	50 (94.3)	32 (60.4)
False	9 (16.4)	17 (30.9)	5 (9.1)	4 (7.7)	4 (7.4)	11 (20.0)	9 (17.3)	3 (5.7)	21 (39.6)
Avoid sharing skin cutting object with infected person									
True	44 (80.0)	43 (78.2)	52 (94.5)	45 (86.5)	49 (90.7)	46 (83.6)	47 (90.4)	51 (96.2)	35 (66.0)
False	11 (20.0)	12 (21.8)	3 (5.5)	7 (13.5)	5 (9.3)	9 (16.4)	5 (9.6)	2 (3.8)	18 (34.0)
Avoid contact with blood and blood products from infected person									
True	42 (76.4)	30 (54.5)	51 (92.7)	48 (92.3)	49 (90.7)	49 (89.1)	42 (80.8)	48 (90.6)	42 (79.2)
False	13 (23.6)	25 (45.5)	4 (7.3)	4 (7.7)	5 (9.3)	6 (10.9)	10 (19.2)	5 (9.4)	11 (20.8)
By staying away with a person living with HIV and AIDS									
True	23 (41.8)	12 (21.8)	21 (38.2)	19 (36.5)	5 (9.3)	15 (27.3)	15 (28.8)	6 (11.3)	21 (39.6)
False	32 (58.2)	43 (78.2)	34 (61.8)	33 (63.5)	49 (90.7)	40 (72.7)	37 (71.2)	47 (88.7)	32 (60.4)
Avoid accidental cuts									
True	37 (67.3)	34 (61.8)	44 (80.0)	45 (86.5)	37 (68.5)	42 (76.4)	42 (80.8)	48 (90.6)	33 (62.3)
False	18 (32.7)	21 (38.2)	11 (20.0)	7 (13.5)	17 (31.5)	13 (23.6)	10 (19.2)	5 (9.4)	20 (37.7)
Avoid touching person who has AIDS									
True	28 (50.9)	19 (34.5)	38 (69.1)	15 (28.8)	13 (24.1)	28 (50.9)	11 (21.2)	9 (17.0)	26 (49.1)
False	27 (49.1)	36 (65.5)	17 (30.9)	37 (71.2)	41 (75.9)	27 (49.1)	41 (78.8)	44 (83.0)	27 (50.9)
Use of Condom									

True	40 (72.7)	31 (56.4)	42 (76.4)	20 (38.5)	2 (3.7)	6 (10.9)	42 (80.8)	48 (90.6)	15 (28.3)
False	15 (27.3)	24 (43.6)	13 (23.6)	32 (61.5)	52 (96.3)	49 (89.1)	10 (19.2)	5 (9.4)	38 (71.7)
Not having more than one sexual partners									
True	42 (76.4)	32 (58.2)	9 (70.9)	27 (51.9)	13 (24.1)	37 967.3)	46 (88.5)	50 (94.3)	36 (67.9)
False	13 (23.6)	23 (41.8)	16 (29.2)	25 (48.1)	41 (75.9)	18 (32.7)	6 (11.5)	3 (5.7)	17 (32.1)

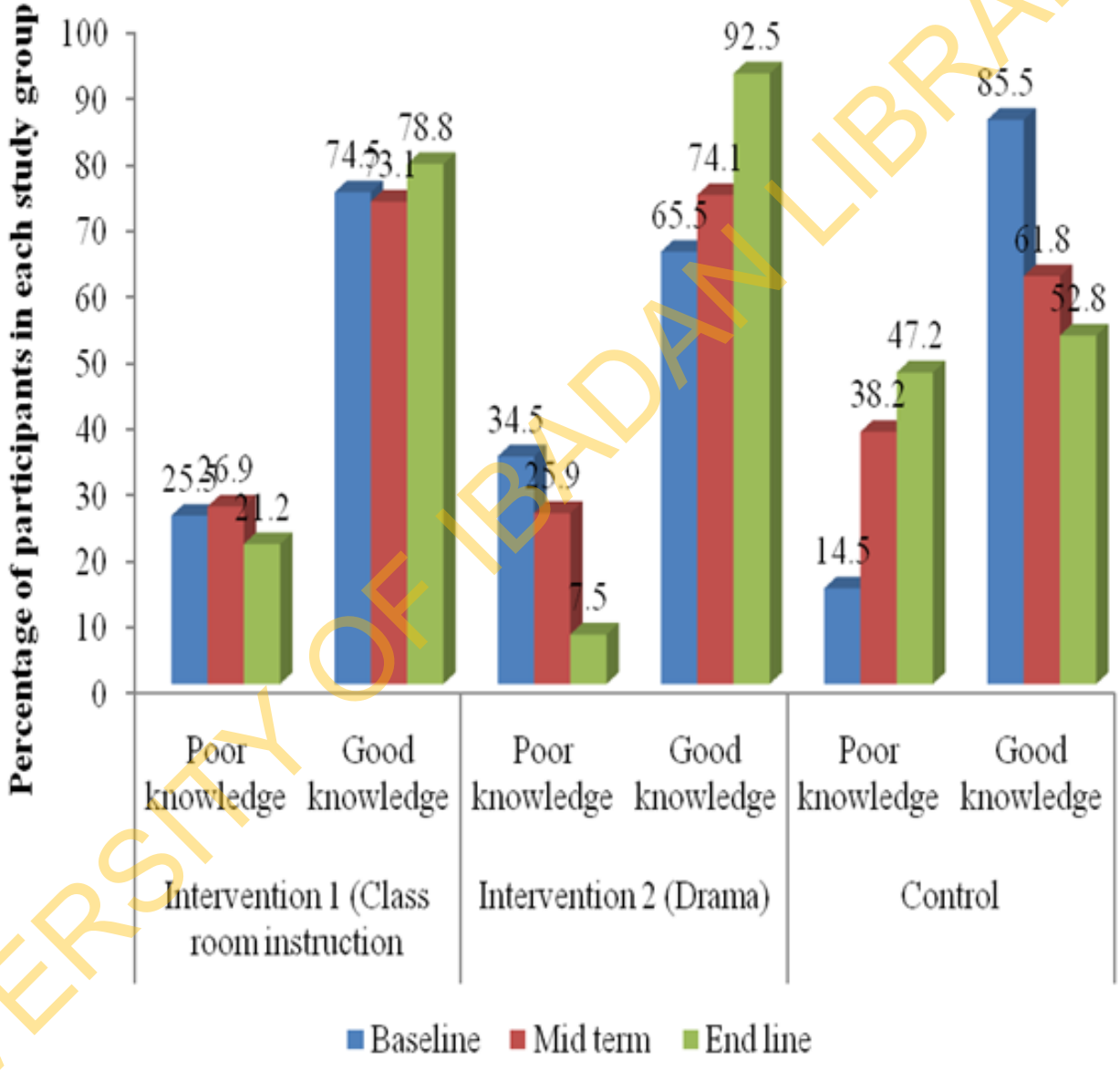

Figure 4.2: Distribution of respondents' knowledge of HIV/AIDS prevention

Comparison of knowledge of HIV/AIDS prevention among the respondents at baseline, midterm and end line

The table below shows mean knowledge scores of respondents on HIV/AIDS prevention at baseline, midterm and end line. On a scale of 21-point knowledge of HIV/AIDS transmission, there was found a slight variation among the three group at various levels of evaluation. Mean scores in intervention 2 and control groups were found to be significant (Table 4.6.1).

Table 4.6.1: Comparison of knowledge of HIV/AIDS prevention among respondents at baseline, midterm and end line

Study group	Baseline Mean (SD)	Follow-up		Total Mean (SD)	T-test (p-value)
		Mid term Mean (SD)	End line Mean (SD)		
Intervention 1	5.3 ± 1.5	5.1 ± 1.2	5.3 ± 1.1	5.2 ± 1.3	0.436 (0.64)
Intervention 2	4.9 ± 1.6	5.0 ± 0.9	5.7 ± 0.7	5.2 ± 1.2	6.079 (0.003*)
Control	5.4 ± 1.1	4.8 ± 1.4	4.5 ± 1.3	4.9 ± 1.3	6.670 (0.002*)
Overall	165 5.2 ± 1.4	161 4.9 ± 1.2	158 5.2 ± 1.7	484 5.1 ± 1.3	1.902 (0.15)
	1.267 (0.28)	1.079 (0.34)	16.201 (0.00*)	3.821 (0.02*)	

***** *Significant at p=0.05*

Table 4.6.2: Comparison of knowledge of HIV/AIDS prevention between baseline and follow-up

	Baseline			Follow-up		
Category	**Mean ± SD**	**T-test**	**p-value**	**Mean ± SD**	**T-test**	**p-value**
E 1 (Classroom instruction)	15.18 ± 2.2	1.053	0.351	17.58 ± 2.3	5.653	0.04*
E 2 (Use of Drama)	15.44 ± 2.1			17.61 ± 1.4		
Control	15.78 ± 2.2			16.55 ± 1.8		

***** *Significant at p=0.05*

Respondents' overall knowledge about HIV/AIDS

Figure 4.2 shows changes in the knowledge of the respondents at both interventions (E1 and E2) compared with the control group. Majority of the respondents in E1 (88.5%; 94.2%) and E2 (92.6%; 100.0%) had good knowledge about HIV/AIDS at immediate and 3 months post-intervention evaluation respectively compare with their baseline results and these are greatly against the result gathered in the control group.

Figure 4.2: Overall knowledge of the respondents on HIV/AIDS at the three study groups among the respondents in the two experimental and control groups

Comparison of overall mean knowledge score of HIV/AIDS (Baseline, Midterm and Follow-up)

Comparison of overall mean knowledge score of HIV/AIDS at baseline, midterm and follow-up evaluations was presented in the Tables 4.7a and b below. The result shows that there was a significant difference between baseline result and immediate intervention and follow-up among E1 (midterm OR-22.7(0.4); follow-up OR- 24.0(0.3) ($p<0.05$) and E2 (mid-term 22.6 (0.3); follow-up 24.5(0.19) ($p<0.05$) compared with baseline in E1, OR- 20.5(0.4); E2, OR-20.4(0.36) and control group OR- 21.6(0.4) respectively.

Table 4.7a: Comparison of overall mean knowledge score of HIV/AIDS (Baseline, Midterm and Follow-up) (on 29-point scale)

Summary of ANOVA of mean scores for variable of knowledge of HIV/AIDS

Study group	**Baseline** Mean (SD)	**Mid term** Mean (SD)	**End line** Mean (SD)	**Total** Mean (SD)	**F test**	**p-value**
Intervention 1	20.5 ± 2.7	22.7 ± 2.7	24.0 ± 1.9	22.4 ± 3.0	1.323	0.279
Intervention 2	20.4 ± 2.6	22.6 ± 1.8	25.0 ± 1.4	22.7 ± 3.1	6.841	0.001*
Control	21.2 ± 2.7	21.2 ± 2.2	20.1 ± 2.8	20.8 ± 3.8	71.266	0.000*
Overall	20.7 ± 2.7	22.2 ± 2.3	23.0 ± 2.9	22.0 ± 3.3		

***** *Significant at p=0.05*

Table 4.7b: Comparison of HIV and AIDS knowledge score between intervention 1 and 2 at follow-up

Category	**N**	**Mean ± SD**	**T test**	**P Value**
Intervention 1 (Classroom instruction)	52	17.58±2.3	0.093	0.926
Intervention 2 (Use of Drama)	54	17.61±1.4		

Respondents' perception of vulnerability to HIV infection at baseline and end line

Respondents' perception of vulnerability to HIV infection was assessed and findings at baseline survey revealed that most respondents in E1, (72.7%) and E2 (76.4%) and control (61.8%) personally perceived themselves vulnerable to HIV infection through sharing clippers and razor blades for barbing. However, the opposite was the case at follow-up as few respondents in E1, (19.2%), E2 (13.2%) and Control (73.6%) perceived themselves vulnerable to the infection. Follow-up result show that a large majority in E1, (92.3%) and E2 (90.6%) believe one can be infected with HIV through sharing tooth brushes (Table 4.8a). The reasons of being vulnerable to HIV infection were mentioned in the Table 4.8b. The result on overall mean score of the respondents' perception on HIV/AIDS was presented in table 4.8c below.

Table 4.8a: Respondents' perception about contacting of HIV at baseline, mid-term and follow up

Variable	Baseline			Mid Term			Follow-up		
Perception of HIV/AIDS statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Perception of self-vulnerable to HIV infection through sharing clippers & razor blades while barbing									
Yes	40 (72.7)	42 (76.4)	34 (61.8)	37 (71.2)	48 (88.9)	40 (72.7)	10 (19.2)	7 (13.2)	39 (73.6)
No	15 (27.3)	13 (23.6)	21 (38.2)	15 (28.8)	6 (11.1)	15 (27.3)	42 (80.8)	45 (86.8)	14 (26.4)
Belief that one could get AIDS through sharing tooth brushes									
Yes	50 (90.9)	44 (80.0)	48 (87.3)	45 (86.5)	42 (77.8)	45 (81.8)	48 (92.3)	48 (90.6)	40 (75.5)
No	5 (9.1)	11 (20.0)	7 (12.7)	7 (13.5)	12 (22.2)	10 (18.2)	4 (7.7)	5 (9.4)	13 (24.5)
Chance of contracting HIV									
Yes	18 (32.7)	9 (16.4)	14 (25.5)	15 (28.8)	38 (70.4)	12 (21.8)	23 (44.2)	27 (50.9)	5 (9.4)
No	37 (67.3)	46 (83.6)	41 (74.5)	37 (71.2)	16 (29.6)	43 (78.2)	29 (55.8)	26 (49.1)	48 (90.6)

Table 4.8b: Respondents' reasons for being at risk of HIV infections

Variable	Baseline			Mid Term			Follow-up		
Perception of HIV/AIDS statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Reasons for being at risk of HIV/AIDS									
I have been sharing razors and nail cutters in cutting my nails	3 (100.0)	9 (90.0)	5 (83.3)	2 (100)	3 (75.0)	2 (66.7)	6 (85.7)	0 (0.0)	0 (0.0)
No reasons	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)
I have had sex with a person	0 (0.0)	0 (0.0)	1 (16.7)	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)
No response	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	1 (25.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Reasons for not being at risk of HIV/AIDS									
I have not been having sexual intercourse and will wait till married	21 (40.4)	8 (17.8)	32 (65.3)	20 (40.0)	9 (18.0)	33 (63.5)	37 (82.2)	41 (77.4)	46 (86.8)
I have not been sharing sharp object like razor with any other person	2 (3.8)	4 (8.9)	1 (2.0)	2 (4.0)	5 (10.0)	1 (1.9)	4 (8.9)	8 (15.1)	0 (0.0)
It is a bad thing to be infected with HIV/AIDS so I cannot risk myself to death	15 (28.8)	7 (15.6)	9 (18.4)	14 (28.0)	8 (16.0)	9 (17.3)	0 (0.0)	2 (3.8)	1 (1.9)

No reasons	2 (3.8)	1 (2.2)	0 (0.0)	2 (4.0)	1 (2.0)	0 (0.0)	1 (2.2)	1 (1.9)	4 (7.5)
Because I don't live/play with person with HIV/AIDS	3 (5.8)	5 (11.1)	1 (2.0)	3 (6.0)	6 (12.0)	1 (1.9)	2 (4.4)	1 (1.9)	0 (0.0)
I have not been sharing blood with another person	1(1.9)	0 (0.0)	1 (2.0)	1 (2.0)	1 (2.0)	1 (1.9)	0 (0.0)	0 (0.0)	2 (3.8)
I do not believe in it	0 (0.0)	1 (2.2)	1 (2.0)	0 (0.0)	13 (26.0)	1 (1.9)	1 (2.2)	0 (0.0)	0 (0.0)
I don't have HIV/AIDS	0 (0.0)	13 (28.9)	1 (2.0)	0 (0.0)	2 (4.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
I will not share tooth brushes with another person	8 (15.4)	6 (13.3)	3 (6.1)	8 (16.0)	5 (10.0)	5 (9.6)	0 (0.0) 0 (0.0)	0 (0.0) 0 (0.0)	0 (0.0) 0 (0.0)

Comparison of perception of HIV/AIDS score of the 2 intervention group with control group at Baseline Midterm and follow-up

A change in respondents' perception was notices at the follow-up evaluation; findings at during baseline survey show that 76.4% and 61.8% of respondents in E1 and E2 respectively had perception of vulnerability to HIV and this increased to 80.8% and 86.8% in E1 and E2 respectively (p=0.000). Findings from the control group show no significant increase.

Table 4.8c: Comparison of perception of HIV/AIDS score of the 2 intervention group with control group at Baseline Midterm and follow-up

Group		Study group				χ^2 df p value
		Intervention 1 № (%)	Intervention 2 № (%)	Control № (%)	Total № (%)	
Base line	Yes	40 (72.7)	42 (76.4)	34 (61.8)	116 (70.3)	3.019 2 0.221
	No	15 (27.3)	13 (23.6)	21 (38.2)	49 (29.7)	
Mid line	Yes	37 (71.2)	48 (88.9)	40 (72.7)	125 (77.6)	5.961 2 0.051
	No	15 (28.8)	6 (11.1)	15 (27.3)	36 (22.4)	
End line	Yes	42 (80.8)	46 (86.8)	14 (26.4)	102 (64.6)	51.124 2 0.000*
	No	10 (19.2)	7 (13.2)	39 (73.6)	56 (35.4)	

***** *Significant at p=0.05*

Respondents' attitude towards HIV/AIDS at baseline and end line

Respondents' attitudinal disposition towards HIV and AIDS was assessed and findings show that at baseline, few respondents were of the view that people living with HIV and AIDS should not be forced to live away from other people. However, this increased significantly as most respondents in E1 (82.7%) and E2 (81.1%) supported this view (Table 4.9). In the same vein, at baseline, few respondents (E1, 3.6% and E2, 5.5%) were of the view that they be happy to be in the same classroom with someone living with HIV and AIDS. This increased significantly to 76.9% and 90.6% (in E1 and E2 respectively) at follow-up evaluation. Findings among the control group show no significant increase. The result on overall mean attitude score of the respondents were presented in Table 4.10 below.

Table 4.9: Respondents' attitude towards HIV/AIDS at baseline, mid-term and end line

Variable	Baseline			Mid-term			Follow-up		
Attitudinal statement	E 1 (Classroom instruction) № (%)	E 2 (Use of Drama) № (%)	Control № (%)	E 1 (Classroom instruction) № (%)	E 2 (Use of Drama) № (%)	Control № (%)	E 2 (Use of Drama) № (%)	E 1 (Classroom instruction) № (%)	Control № (%)
People who has AIDS should be forced to live away from other people									
Agree	37 (67.3)	31 (56.4)	19 (34.5)	10 (19.2)	0 (0.0)	27 (49.1)	7 (13.5)	9 (17.0)	18 (34.0)
Disagree	16 (29.1)	12 (21.8)	33 (60.0)	35 (67.3)	53 (98.1)	17 (30.9)	43 (82.7)	43 (81.1)	31 (58.5)
Undecided	2 (3.6)	12 (21.8)	3 (5.5)	7 (13.5)	1 (1.9)	11 (20.0)	2 (3.8)	1 (1.9)	4 (7.5)
Will be happy to be in the same classroom with somebody who has HIV and AIDS									
Agree	2 (3.6)	3 (5.5)	5 (9.1)	22 (42.3)	47 (87.0)	4 (7.3)	40 (76.9)	48 (90.6)	7 (13.2)
Disagree	48 (87.3)	47 (85.5)	45 (81.8)	29 (55.8)	5 (9.3)	41 (74.5)	10 (19.2)	5 (9.4)	36 (67.9)
Undecided	5 (9.1)	5 (9.1)	5 (9.1)	1 (1.9)	2 (3.7)	10 (18.2)	2 (3.8)	0 (0.0)	10 (18.9)
Will be happy to shake hands with a friend who has AIDS									
Agree	8 (14.5)	6 (10.9)	8 (14.5)	32 (61.5)	49 (90.7)	6 (10.9)	40 (76.9)	46 (86.8)	4 (7.5)
Disagree	41 (74.5)	42 (76.4)	36 (65.5)	18 (34.6)	2 (3.7)	42 (76.4)	12 (23.1)	7 (13.2)	32 (60.4)
Undecided	6 (10.9)	7 (12.7)	11 (20.0)	2 (3.8)	3 (5.6)	7 (12.7)	0 (0.0)	0 (0.0)	17 (32.1)
It is a good idea for adolescents to delay sex until they are married									
Agree	50 (90.9)	47 (85.5)	48 (87.3)	50 (96.2)	50 92.6)	50 (90.9)	48 (92.3)	51 (96.2)	43 (81.1)
Disagree	3 (5.5)	3 (5.5)	4 (7.3)	0 (0.0)	0 (0.0)	3 (5.5)	4 (7.7)	2 (3.8)	3 (5.7)
Undecided	2 (3.6)	5 (9.1)	5 (5.5)	2 (3.8)	4 (7.4)	2 (3.6)	0 (0.0)	0 (0.0)	7 (13.2)

A teacher living with HIV and AIDS should continue teach if not sick									
Agree	22 (40.0)	21 (38.2)	28 (50.9)	43 (82.7)	50 (92.6)	13 (23.6)	48 (92.3)	50 (94.3)	15 (28.3)
Disagree	23 (41.8)	26 (47.3)	13 (23.6)	4 (7.7)	1 (1.9)	23 (41.8)	4 (7.7)	3 (5.7)	25 (47.2)
Undecided	10 (18.2)	8 (14.5)	14 (25.5)	5 (9.6)	3 (5.6)	19 (34.5)	0 (0.0)	0 (0.0)	13 (24.5)
Students with HIV and AIDS should be isolated									
Agree	34 (61.8)	25 (45.5)	21 (38.2)	0 (0.0)	0 (0.0)	23 (41.8)	10 (19.2)	6 (11.3)	23 (43.4)
Disagree	12 (21.8)	21 (38.2)	27 (49.1)	34 (65.4)	47 (87.0)	18 (32.7)	42 (80.8)	47 (88.7)	21 (39.6)
Undecided	9 (16.4)	9 (16.4)	7 (12.7)	18 (16.4)	2 (3.7)	14 (25.5)	0 (0.0)	0 (0.0)	9 (17.0)

Respondents' overall attitude towards HIV/AIDS

While comparing of overall mean attitude score about HIV and AIDS transmission and prevention during baseline, midterm and follow–up evaluations, significant change in attitudinal dispositions towards HIV and AIDS among respondents in E2 (Use of drama) was observed (baseline, 4.9 ± 1.5; midterm, 5.0 ± 0.9 and follow–up, 5.6 ± 0.7) (Table 4.10).

Table 4.10: Overall score of attitude towards HIV/AIDS among the respondents in the two experimental and control groups at baseline and follow up

Study group	**Baseline** Mean (± SD)	**Follow-up**		**Total** Mean (± SD)	**F test**	**p-value**
		Mid term Mean (± SD)	**End line** Mean (± SD)			
Intervention 1	5.3 ± 1.4	5.1±1.2	5.3±1.2	5.2±1.3	0.436	0.640
Intervention 2	4.9 ± 1.5	5.0±0.9	5.6±0.7	5.2±1.1	6.268	0.002*
Control	5.3 ± 1.0	4.7±1.5	4.5±1.2	4.9±1.3	6.670	0.002*
Overall	5.2 ± 1.4	4.9 ± 1.2	5.1 ± 1.1	5.1 ± 1.3	2.003	0.13
	1.267 ± 0.28	1.046 ± 0.35	16.201 ± 0.00*	3.759 ± 0.02*		

** Significant at p=0.05*

Respondents' risk reduction practices

Some of the HIV risk behaviours reduction respondents before the intervention were also examined at follow-up to determine their behaviour with reference to pre- intervention. From the result ate follow-up, it was shown that respondents who yielded to not playing with sharp object at follow-up; E1, (80.8%) and E2 (98.1%) increased compared to baseline E1, (49.1%) and E2 (61.8%). There was an increase in risk reduction practices in the intervention groups on not sharing tooth brushes at home (at follow-up E1, 94.2% and E2, 100.0%; baseline E1, 68.1% and E2, 81.8%). In same manner not sharing of razors and nail cutters in cutting nail E1, (86.5%) and E2 (94.3%) doubled the responses at baseline in E1 (38.2%) and E2 (40.0%) respectively. More also, there were better pronouncement of no more fighting and biting other student in E1, (90.4%) and E2 (100.0%) at follow-up than at baseline E1, (80.0%) and E2 (65.5%). There was great percentage of respondents that were not touching First-Aid Treatment of injured students without gloves at follow-up E1, (88.5%) and E2 (100.0%) against baseline in E1, (50.9%) and E2 (56.4%); no more sharing your clothing's with other students in E1, (88.5%) and E2 (98.1%) was pronounced better at follow-up than at baseline E1, (58.2%) and E2 (69.1%). The whole respondents declared not having sex in school at follow-up in E1, (100.0%) and E2 (100.0%) against the baseline E1, (90.9%) and E2 (96.4%) and same percentage declared not having sex outside school in both E1, (100.0%) and E2 (100.0%) at follow-up compared with baseline E1, (96.4%) and E2 (94.5%) (Tables 4.11a and b).

The result above is the reflection of the overall mean score generated result in table 4.12 as midterm E1 (OR - 23.83 (0.48)) and E2 (OR - 24.87 (0.36)) and follow-up E1 (OR- 23.61 (0.46)) and E2 (OR - 26.72 (0.15) results in were greater compared with results in baseline of E1 (OR - 18.49 (0.622)) and 19.75 (0.78) and with reference to the control group at both ends E1 (OR - 17.67 (0.68) and E2 (OR -16.98 (0.72)).

Table 4.11: Respondents' risk reduction practices

Variable	Baseline			Mid-term			Follow-up		
Risk reduction practices statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 2 (Use of Drama) № (%)**	**E 1 (Classroom instruction) № (%)**	**Control № (%)**
Playing with sharp object									
Never	27 (49.1)	34 (61.8)	23 (41.8)	45 (86.5)	52 (96.3)	22 (41.8)	42 (80.8)	52 (98.1)	23 (43.4)
Once	22 (40.0)	15 (27.3)	14 (25.5)	7 (13.5)	2 (3.7)	10 (25.5)	10 (19.2)	0 (0.0)	12 (22.6)
Twice	6 (10.9)	6 (10.9)	18 (32.7)	0 (0.0)	0 (0.0)	23 (32.7)	0 (0.0)	1 1.9)	18 (34.0)
Risk reduction practices-Sharing tooth brushes at home									
Never	34 (61.8)	45 (81.8)	35 (63.6)	42 (80.8)	46 (85.2)	37 (67.3)	49(94.2)	53(100.0)	25 (47.2)
Once	12 (21.8)	8 (14.5)	12 (21.8)	10 (19.2)	8 (14.8)	8 (14.5)	3 (5.8)	0 (0.0)	18 (34.0)
Twice	9 (16.4)	2 (3.6)	8 (14.5)	0 (0.0)	0 (0.0)	10 (18.2)	0 (0.0)	0 (0.0)	10 (18.9)
Risk reduction practices-Sharing of razors and nail cutters in cutting nail									
Never	21 (38.2)	22 (40.0)	13 (23.6)	49 (94.2)	52 (96.3)	22 (40.0)	45 (86.5)	50 (94.3)	15 (28.3)
Once	16 (29.1)	19 (34.5)	20 (36.4)	3 (5.8)	2 (3.7)	17 (30.4)	4 (7.7)	0 (0.0)	22 (41.5)
Twice	18 (32.7)	14 (25.5)	22 (40.0)	0 (0.0)	0 (0.0)	16 (29.1)	3 (5.8)	3 (5.7)	16 (30.2)
Risk reduction practices-Fighting and biting other student									
Never	44 (80.0)	36 (65.5)	34 (61.8)	45 (86.5)	44 (81.5)	31 (56.4)	47 (90.4)	53 (100.0)	36 (67.9)
Once	6 (10.9)	12 (21.8)	15 (27.3)	7 (13.5)	10 (18.1)	17 (30.9)	2 (3.8)	0 (0.0)	12 (22.6)
Twice	5 (9.1)	7 (12.7)	6 (10.9)	0 (0.0)	0 (0.0)	7 (12.7)	3 (5.8)	0 (0.0)	6 (9.4)

Risk reduction practices-First-aid Treatment of injured students without gloves									
Never	28 (50.9)	31 (56.4)	19 (34.5)	45 (86.5)	44 (81.5)	31 (56.4)	46 (88.5)	53(100.0)	18 (34.0)
Once	10 (18.2)	15 (27.3)	14 (25.5)	7 (13.5)	10 (18.1)	15 (27.3)	5 (9.6)	0 (0.0)	17 (32.0)
Twice	17 (30.9)	9 (16.4)	22 (40.0)	0 (0.0)	0 (0.0)	9 (16.4)	1 (1.9)	0 (0.0)	18 (34.0)
Risk reduction practices-Sharing your clothing's with other students									
Never	32 (58.2)	38 (69.1)	33 (60.0)	10 (58.8)	31 (57.4)	25 (45.5)	46 (88.5)	52 (98.1)	29 (54.7)
Once	12 (21.8)	13 (23.6)	15 (27.3)	6 (35.3)	18 (33.3)	17 (30.9)	5 (9.6)	1 (1.9)	20 (37.7)
Twice	11 (20.0)	4 (7.3)	7 (12.7)	1 (5.9)	5 (9.3)	13 (23.6)	1 (1.9)	0 (0.0)	4 (7.5)
Risk reduction practices-Having sex while in school									
Never	50 (90.9)	53 (96.4)	54(98.2)	51 (98.1)	53 (98.1)	53 (96.4)	52 (100.0)	53 (100.0)	53 (100.0)
Once	4 (7.3)	1 (1.8)	1(1.8)	0 (0.0)	1 (1.9)	2 (3.6)	0 (0.0)	0 (0.0)	0 (0.0)
Twice	1 (1.8)	1 (1.8)	0(0.0)	1 (1.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Risk reduction practices-Having sex while in outside school									
Never	53 (96.4)	52 (94.5)	52 (94.5)	51 (98.1)	51 (98.1)	51 (92.7)	52 (100.0)	53 (100.0)	48 (90.6)
Once	2 (3.6)	3 (5.5)	3 (5.5)	0 (0.0)	1 (1.9)	4 (7.3)	0 (0.0)	0 (0.0)	4 (7.5)
Twice	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.9)

Table 4.12 Respondents' overall HIV/AIDS risk reduction practices scores at Baseline Midterm and follow-up

Study group	**Baseline** Mean (±SD)	**Mid term** Mean (±SD)	**End line** Mean (±SD)	**Total** Mean (±SD)	**F test**	**p-value**
Intervention 1	18.5 ± 4.6	23.8 ± 3.4	24.9 ± 2.6	22.4 ± 3.5	4.295	0.015*
Intervention 2	19.8 ± 5.8	23.6 ± 3.4	27.0 ± 1.1	23.5 ± 3.4	40.602	0.000*
Control	16.9 ± 4.8	17.8 ± 5.1	17.0 ± 5.3	17.2 ± 5.1	118.793	0.000*
Overall	18.4 ± 5.2	21.7 ± 5.0	22.8 ± 5.5	21.0 ± 5.2		

***** *Significant at p=0.05*

Respondents' self–efficacy on HIV/AIDS at baseline and follow up

The result from the Table 4.5 shows the responses of the respondents' self–efficacy on HIV/AIDS. Almost all the respondents in both E1, (90.4%) and E2 (100.0%) confidently accepted that they are ready to tell friends and relatives about HIV/AIDS at follow-up contrary to the less majority that indicated such in E1, (69.1%) and E2 (65.5%) at baseline period while control remain insignificant at follow-up. The result also the same on discuss abstinence from sex with respondents' friends in E1 (88.5%) and E2 (98.1%) at follow-up. Those who declared discuss sharing of unsterile barbering and shaving instrument with their friends and relative were overwhelming in percentages E1 (96.2%) and E2 (98.1%) at follow-up compare with baseline result in E1 (83.6%) and E2 (78.2%). Greater proportion in E1 (86.5%) and E2 (96.2%) confidently assumed to tell others about risk in playing sex in school contrary to the above half that declared this at baseline level E1 (78.2%) and E2 (69.1%). While excellent percentages affirmatively determined to feel good talking to friend to abstain from sex till married in E1 (96.2%) and E2 (100.0%) at follow-up, less than these percentages admitted to do so at baseline period in E1 (85.5%) and E2 (87.3%).

Table 4.13: Self–efficacy on HIV/AIDS among respondents in at baseline and follow up

Variable	Baseline			Mid-term			Follow-up		
Self–efficacy statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Tell friends and relatives about HIV/AIDS									
Confident	38 (69.1)	36 (65.5)	32 (58.2)	39 (75.0)	48 (88.9)	36 (65.5)	47 (90.4)	52 (100.0)	41 (77.4)
Not confident	13 (23.6)	13 (23.6)	14 (25.5)	9 (17.3)	4 (7.4)	11 (20.0)	5 (9.6)	0 (0.0)	6 (11.3)
Uncertain	4 (7.3)	6 (10.9)	9 (16.4)	4 (7.7)	2 (3.7)	8 (14.5)	0 (0.0)	0 (0.0)	6 (11.3)
Discuss abstinence from sex with my friends									
Confident	43 (78.2)	46 (83.6)	31 (56.4)	47 (90.4)	51 (94.4)	39 (70.9)	46 (88.5)	52 (98.1)	36 (67.9)
Not confident	8 (14.5)	7 (12.7)	13 (23.6)	5 (9.6)	3 (5.6)	13 (23.6)	6 (11.5)	1 (1.9)	15 (28.3)
Uncertain	4 (7.3)	2 (3.6)	11 (20.0)	0 (0.0)	0 (0.0)	3 (5.5)	0 (0.0)	0 (0.0)	2 (3.8)
Discuss sharing of unsterile barbering and shaving instrument									
Confident	46 (83.6)	43 (78.2)	28 (50.9)	50 (96.2)	50 (92.6)	44 (80.0)	50 (96.2)	52 (98.1)	43 (81.1)
Not confident	9 (16.4)	8 (14.5)	20 (36.4)	2 (3.8)	3 (5.6)	10 (18.2)	2 (3.8)	1 (1.9)	8 (15.1)
Uncertain	0 (0.0)	4 (7.3)	7 (12.7)	0 (0.0)	1 (1.9)	1 (1.8)	0 (0.0)	0 (0.0)	2 (3.8)
Tell others about risk in playing sex in school									
Confident	43 (78.2)	38 (69.1)	29 (52.7)	49 (94.2)	49 (90.7)	38 (69.1)	45 (86.5)	51 (96.2)	43 (81.1)
Not confident	8 (14.5)	13 (23.6)	18 (32.7)	2 (3.8)	4 (7.4)	14 (25.5)	7 (13.5)	1 (1.9)	5 (9.4)
Uncertain	4 (7.3)	4 (7.3)	8 (14.5)	1 (1.9)	1 (1.9)	3 (5.5)	0 (0.0)	1 (1.9)	5 (9.4)

Will feel good talking to friend to abstain from sex till married									
Confident	47 (85.5)	48 (87.3)	46 (83.6)	49 (94.2)	53 (98.1)	46 (83.6)	50 (96.2)	53 (100.0)	36 (67.9)
Not confident	5 (9.1)	5 (9.1)	7 (12.7)	3 (5.8)	1 (1.9)	7 (12.7)	2 (3.8)	0 (0.0)	16 (30.2)
Uncertain	3 (5.5)	2 (3.6)	2 (3.6)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)	0 (0.0)	1 (1.9)

Respondents' overall self-efficacy skill of HIV/AIDS reduction at **baseline, midterm and follow up**

The overall mean scores of respondents on self–efficacy skill developed towards HIV and AIDS reduction at baseline and follow-up were compared and it was shown that there was trend of positive change from midterm to follow-up period in E1 (13.5 ± 2.5) to (13.7 ± 2.4) and E2, midterm (13.5 ± 2.5) to follow-up (13.7 ± 2.4) ($p<0.00$) compared with baseline result of E1 (11.8 ± 3.5) and E2 (11.5 ± 3.5) vis-à-vis indifferent in the results in control group at both baseline, midterm and follow-up (9.1 ± 3.9), (11.3 ± 3.5) and (11.2 ± 3.4) respectively.

Table 4.14: Overall score of respondents' self-efficacy skill for HIV/AIDS risk behaviour reduction at baseline, midterm and follow up

Study group	**Baseline** Mean (SD)	**Follow-up**		**Total** Mean (SD)	**F test (p-value)**
		Mid term Mean (SD)	**End line** Mean (SD)		
Intervention 1	11.8 ± 3.5	13.5 ± 2.5	13.7 ± 2.4	13.0 ± 3.0	6.816 (0.001*)
Intervention 2	11.5 ± 3.9	13.9 ± 2.4	14.7 ± 0.9	13.4 ± 3.1	19.720 (0.00*)
Control	9.1 ± 3.9	11.3 ± 3.5	11.2 ± 3.4	10.5 ± 3.8	7.016 (0.001*)
Overall	165 10.8 ± 4.0	161 12.9 ± 3.1	158 13.2 ± 2.8	484 12.3 ± 3.5	47.382 (0.00*)
	8.625 (0.00*)	12.596 (0.00*)	27.469 (0.00*)	25.121 (0.00*)	

***** *Significant at p=0.05*

Table 4.15: Comparison of Self-efficacy of HIV/AIDS score of the 2 interventions groups with control group at Baseline, Midterm and follow-up

Study group	**Baseline** Mean (SD)	**Mid term** Mean (SD)	**End line** Mean (SD)	**Total** Mean (SD)	**F test (p-value)**
Intervention 1	11.8 ± 3.5	13.5 ± 2.5	13.7 ± 2.4	13.0 ± 3.0	6.816 (0.001*)
Intervention 2	11.5 ± 3.9	13.9 ± 2.4	14.7 ± 0.9	13.4 ± 3.1	19.720 (0.00*)
Control	9.1 ± 3.9	11.3 ± 3.5	11.2 ± 3.4	10.5 ± 3.8	7.016 (0.001*)
Overall	165 10.8 ± 4.0	161 12.9 ± 3.1	158 13.2 ± 2.8	484 12.3 ± 3.5	47.382 (0.00*)
	8.625 (0.00*)	12.596 (0.00*)	27.469 (0.00*)	25.121 (0.00*)	

***** *Significant at p=0.05*

Respondents' life building skill on HIV/AIDS prevention at baseline and follow up

Respondents' life building skill on HIV/AIDS prevention revealed the position of the respondents in the two experimental groups and control at baseline period in comparison with follow-up. From the results, all (100.0%) of the respondents at follow-up in experimental groups (E1 & E2) had full aware of life building skill that can be used in protecting against HIV/AIDS compared to 72.2% respondents in E1, E2 and control respectively at baseline. Greater percentage (E1, 92.3%) and (E2, 100.0%) of the respondents at follow-up affirmed that they will not have sex until they are married compared with less than these percentages (E1, 80.0%) and (E2, 72.5%) at baseline. In the same vein, respondents in E1, 90.4% and E2, 96.2% admitted resisting not to have or have unprotected sex (use condom) with the sex partners in future while less participant agreed with the notion at baseline (E1, 35.0%), (E2, 32.5%) and control, 32.5%. accepting - saying no and stand by it without hurting whoever approach for sex by respondents in E1, 84.6% and E2, 98.1% at follow-up was great compared to average percentage that accepted E1, 52.5%, E2, 52.5% and control 52.5% respectively.

Findings on respondents' ability to control oneself from having sex during the follow-up was better among E1, 80.6% and E2, 96.2% and making up one's mind to whether or not to have sex at premature age recorded same percentage (E1, 86.5%) and (E2, 98.1%) at follow-up against less percentages at baseline on the issues (table 4.13). Follow-up result after intervention show that there was increase in the percentage of the respondents who admitted that they were more valuable to their parents and their communities than to be sexually dented by anyone (E1, 92.3%) and (E2, 94.3%) against the (E1, 77.5%) and (E2, 75.0%) at baseline. This was also reflected in the most respondents who declared that will preferred to attain their educational goal before going into sexual relation E1, 90.4% and E2, 96.2% compared baseline (E1, 80.0%) and (E2, 82.5%). Significantly E1, 90.4%) and (E2, 100.0%) of respondents have intention to persuading their friends to abstain from sex till they get married at follow-up against (E1, 87.5%) and (E2, 77.5%). However, there was no

significance in reaction of respondents in control at both baseline and follow-up periods in all the life building skill questions raised (Table 4.13).

Table 4.16: Respondents' life building skill on HIV/AIDS prevention at baseline and follow up

Variable	Baseline			Mid-term			Follow-up		
Life building statement	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**	**E 1 (Classroom instruction) № (%)**	**E 2 (Use of Drama) № (%)**	**Control № (%)**
Aware of any life building skills that can be used in protecting you against HIV/AIDS?									
Yes	40 (72.7)	40 (72.7)	40 (72.7)	50 (96.2)	54 (100)	49 (89.1)	52 (100.0)	53 (100.0)	51 (96.2)
No	15 (27.3)	15 (27.3)	15 (27.3)	2 (3.8)	0 (0)	6 (10.9)	0 (0.0)	0 (0.0)	2 (3.8)
Refusal: Refusing to have sex until you are married									
Yes	32 (80.0)	29 (72.5)	26 (65.0)	48 (96.0)	54 (100)	37 (75.5)	48 (92.3)	53 (100.0)	42 (82.4)
No	8 (20.0)	11 (27.5)	14 (35.0)	2 (4.0)	0 (0.0)	12 (24.5)	4 (7.7)	0 (0.0)	9 (17.6)
Negotiation: Resisting not to have or have unprotected sex (Use condom)									
Yes	14 (35.0)	13 (32.5)	13 (32.5)	47 (94.0)	54 (100)	30 (61.2)	47 (90.4)	51 (96.2)	24 (47.1)
No	26 (65.0)	27 (67.5)	27 (67.5)	3 (6.0)	0 (0.0)	19 (38.8)	5 (9.6)	2 (3.8)	27 (52.9)
Assertive: Saying no and standing by it without hurting whoever approach you for sex									
Yes	21 (52.5)	21 (52.5)	21 (52.5)	45 (90.0)	54 (100)	32 (65.3)	44 (84.6)	52 (98.1)	32(62.7)
No	19 (47.5)	19 (47.5)	19 (47.5)	5 (10.0)	0 (0.0)	17 (34.7)	8 (15.4)	1 (1.9)	19(37.3)
Self-efficacy: ability to control yourself from having sex									

Yes	26 (65.0)	24 (60.0)	18 (45.0)	48 (96.0)	54 (100)	34 (69.4)	42 (80.8)	51 (96.2)	34 (66.7)
No	14 (35.0)	16 (40.0)	22 (55.0)	5 (4.0)	0 (0.0)	15 (30.6)	10 (19.2)	2 (3.8)	17 (33.3)
Making decision: Making up mind to whether or not to have sex at this age									
Yes	32 (80.0)	23 (57.5)	30 (75.0)	43 (86.0)	54 (100)	35 (71.4)	45 (86.5)	52 (98.1)	38 (74.5)
No	8 (20.0)	17 (42.5)	10 (25.0)	7 (14.0)	0 (0.0)	14 (28.6)	7 (13.5)	1 (1.9)	13 (25.5)
Value clarification: Seeing oneself more precious to parent and community than to be sexually dented by anyone									
Yes	31 (77.5)	30 (75.0)	29 (72.5)	50 (96.2)	54 (100)	44 (89.8)	48 (92.3)	50 (94.3)	47 (92.2)
No	9 (22.5)	10 (25.0)	11 (27.5)	2 (3.8)	0 (0.0)	5 (10.2)	4 (7.7)	3 (5.7)	4 (7.8)
Goal setting: Having the mind of attaining educational goal before going into sexual relation									
Yes	32 (80.0)	33 (82.5)	36 (90.0)	50 (100.0)	54 (100)	44 (89.8)	47 (90.4)	51 (96.2)	45 (88.2)
No	8 (20.0)	7 (17.5)	4 (10.0)	0 (0.0)	0 (0.0)	5 (10.2)	5 (9.6)	2 (3.8)	6 (11.8)
Communication and counselling: Persuading friends to abstain from sex till they get marries									
Yes	28 (70.0)	35 (87.5)	31 (77.5)	48 (96.0)	54 (100)	40 (81.6)	47 (90.4)	53 (100.0)	38 (74.5)
No	12 (20.0)	5 (12.5)	9 (22.5)	2 (4.0)	0 (0.0)	9 (18.4)	5 (9.6)	0 (0.0)	13 (25.5)

Hypotheses testing

Hypothesis one:

$H_0$1: There is no significant difference between the Experimental group 1 (E1) and Experimental group 2 (E2) at baseline and follow-up in respect to knowledge about HIV and AIDS disease

Comparison of knowledge about HIV and AIDS disease between Experimental group 1 and Experimental group 2 at follow-up

The ANOVA table below revealed the significance level of knowledge about HIV/AIDS between intervention 1 (E1) and intervention 2 (E2) groups at follow-up, from which it was shown that there was no significance difference between the use of classroom instructional method and drama method on the knowledge about HIV/AIDS among the respondents in the two intervention groups E1 (24.0 ± 1.9) and E2 (24.5 ± 1.4) (f=2.690; p=0.104). Based on this result, the researcher therefore fail to reject the null hypothesis stated above (p>0.05).

Table 4.18: Comparison of overall knowledge of HIV/AIDS score between 2 interventions (Baseline) Midterm and follow-up

Group	N	Mean (SD)	X (SE)	T	p-value
Intervention 1 (Class room Instruction)	52	24.0 ± 1.9	0. 262		
Intervention 2 (Use of Drama)	53	24.5 ± 1.4	0. 194	2.690	0.104

Hypothesis two:

$H_0$2: There is no significant difference between the Experimental group 1 (E1) and Experimental group 2 (E2) at baseline and follow-up in respect to attitudinal disposition towards HIV/AIDS and risk of infection

Comparison of Attitude towards of HIV/AIDS score between 2 interventions (Baseline) Midterm and follow-up

The ANOVA table below revealed the significance level of attitudinal disposition towards HIV/AIDS and risk of infection between intervention 1 (E1) and intervention 2 (E2) groups at follow-up, from which it was shown that there was significance difference between the use of classroom instructional method and drama method on the attitudinal disposition towards HIV/AIDS and risk of infection among the respondents in the two intervention groups E1 (5.31±1.1) and E2 (5.66±0.7). Based on this result, the researcher therefore not accepted the null hypothesis stated above as respondents in the E2 (drama) had better attitudes disposition towards HIV/AIDS and risk of infection (f=16.2; p=0.000) than their counterpart in E1 (p<0.05).

Table 4.19: Comparison of Attitude towards of HIV/AIDS score between 2 interventions Baseline, Midterm and Follow-up

Experimental groups	N	Mean (SD)	X (SE)	F	p-value
Intervention 1 (Class room Instruction)	52	5.31 ± (1.1)	0.154	16.2	0.000*
Intervention 2 (Use of Drama)	53	5.66 ± (0.7)	0.101		

***** *Significant at p=0.05*

$H_0$3: There is no significant difference between the Experimental group 1 (E1), Experimental group 2 (E2) and the Control at baseline and follow-up in respect to attitudinal disposition towards HIV/AIDS and risk of infection

Comparison of experimental groups (EI & E2) and Control at follow-up

The ANOVA table below revealed the significance level of attitudinal disposition towards HIV/AIDS and risk of infection between intervention groups (E1 & E2) control group at follow-up, from which it was shown that there was significance difference between the instructional methods used (classroom instruction and drama methods) on the attitudinal disposition towards HIV/AIDS and risk of infection among the respondents in the two intervention groups E1 (5.3 ± 1.1) and E2 (5.7 ± 0.7) compared to control group (4.5 ± 1.3). Based on this result, the researcher therefore not accepted the null hypothesis stated above as respondents in the E1 & E2 had positive attitudes disposition towards HIV/AIDS and risk of infection (f=16.2; p=0.000) than their counterpart in control (p<0.05).

Table 4.20: Comparison of experimental groups (EI & E2) and Control at follow-up

Experimental groups	**N**	**Mean (SD)**	**X (SE)**	**F**	**p-value**
Intervention 1 (Classroom Instruction)	52	5.3 ± 1.1	0.15		
Intervention 2 (Use of Drama)	53	5.7 ± 0.7	0.10	16.2	0.000*
Control	53	4.5 ± 1.3	0.18		
Total	**158**	**5.2 ± 1.2**	**0.093**		

***** *Significant at p=0.05*

Hypothesis four

$H_0$4: There is no significant difference between the Experimental group 1 (E1) and Experimental group 2 (E2) at baseline and follow-up in respect to risk behaviours reduction practices among adolescents in secondary schools in Orlu zone, Imo State, Nigeria

Comparison of HIV/AIDS risk reduction score between 2 interventions (Baseline) Midterm and follow-up

The ANOVA table below revealed the significance level of risk reduction practices between intervention 1 (E1) and intervention 2 (E2) groups at follow-up, from which it was shown that there was significance difference between the use of classroom instructional method and drama method in risk reduction practices among the respondents in the two intervention groups E1 (2.1±2.6) and E2 (0.3±1.7). Based on this result, the researcher therefore not accepted the null hypothesis stated above as respondents in the E2 (drama) had better improvement in risk reduction practices (f=72.53; p=0.000) than their counterpart in E1 (p<0.05).

Table 4.21: Comparison of HIV/AIDS risk reduction score between 2 interventions Baseline, Midterm and Follow-up

Experimental groups	**N**	**Mean (SD)**	**X (SE)**	**F**	**p-value**
Intervention 1 (Class room Instruction)	52	2.1 ± 2.6	2.61	72.532	0.000*
Intervention 2 (Use of Drama)	53	0.3 ± 1.7	1.07		

***** *Significant at p=0.05*

CHAPTER FIVE

DISCUSSION

This chapter discusses the major findings of the study in relation to the major theme. The study was designed to determine the effects of two educational interventions, Classroom instruction and Drama based communication on HIV/AIDS knowledge and risk reduction behaviours among in school adolescents in Orlu Zone in Imo State, Nigeria. The overall conclusion drawn from the findings, recommendation, implication of the study and the suggestion for further study is also presented.

Socio-demographic characteristics

There was no significant difference in respondents in intervention 1, 2 and control groups in terms of their socio-demographic characteristics such as age, sex, class distribution, religion and ethnicity. It was also observed that the students had the same background. The age category of the students, majority fell in the category of 10-14 years 80% than in 15 years and above 20%. This age group of students in JSS II reflected the trend of changes in the age of pupils entering into secondary schools nowadays; there are more pupils from private primary schools (where parents enrol their wards at early age of 2-3 years for pre-nursery class and graduate from primary school earlier than the recommended age of 12 years). These days many of these pupils enter secondary schools below stipulated age. The study respondents' ages were still within the adolescents' ages defined by World Health Organisation (2010, 2012). This was also corroborated in the study conducted by Ajayeoba (2012) where he found that majority of his respondent in JSS 1-3 classes fall within the ages of 10-14 years.

The three study sites are co-educational schools; therefore was similarity in terms of sex representation although the intervention school (E1) had more male students than females; however, both sexes were well represented in the study. Bridging the gap between male and

female education is beneficial to national development. This coincides with the Safe Motherhood (2005) goal which proposed that, "if you train a woman you have trained the nation''; education makes a difference. Adolescents' knowledge of HIV testing facilities increased with educational attainment. Similarly, studies in Malawi and Tanzania on women's knowledge of HIV testing facilities, revealed that their knowledge increased with education (UNICEF/DHS, 1999-2010).

Awareness of HIV and AIDS

The level of awareness in all the index schools ranged from 98.2% to 100%. However, this awareness did not translate into knowledge on basic facts about HIV/AIDS and risk reduction behaviours. This finding corroborates with the Harvey, Stuart and Swan (2000) and Cohall (2002) on evaluation of drama–in–education programmed to increase AIDS awareness in South Africa high school. Finding revealed that greater proportion of respondents were aware of HIV/AIDS but the level of awareness did not reflect on how HIV could be transmitted or prevented. The demonstration of improvement in knowledge and attitudes towards HIV/AIDS was observed among students who received intervention through drama programme compared with students who received class instruction. The finding is also similar to that of Cohall and colleagues (2002) who found that level of awareness did not reflect how HIV could be transmitted or prevented. On the other hand, the information sources cited by respondents constitute a good opportunity for educational intervention programme for this group.

Knowledge of HIV/AIDS

The two interventions had positive impact on students' knowledge of basic facts about HIV/AIDS including mode of transmission. At baseline, students from control school were most knowledgeable; reverse was the case at follow-up among respondents in the intervention schools. Respondents in the drama school and classroom instruction groups have the highest knowledge scores. This implied that using edu-entertainment medium in communicating basic health information have more impact on knowledge of the adolescents on health-related issues more especially on HIV/AIDS and sexuality/reproductive health.

This finding agrees with the results of previous studies on secondary school students in South-west, Nigeria by Ajuwon (2010) where there was knowledge increase after an educational intervention. It is said that "knowledge is power". This also agrees with Singhal and Rogers (2003) who reported that knowledge, attitudes and values acquired at the secondary school levels will play a critical role as part of comprehensive strategy in HIV/AIDS risk reduction and promoting healthy life style. Parks, (2007). Lucas and Gilles (2003) emphasized that knowledge about routes of transmission of communicable diseases prevent transmission. Findings from this study showed that students could identify the transmission modes and preventive measures; however, they were less knowledgeable about the causative agent of AIDS. This corroborates with Asante and Oti-Boadi (2013) findings in their study of HIV/AIDS knowledge among undergraduates University students in Ghana.

Knowledge on HIV/AIDS prevention

Findings from this study showed that the two interventions had positive impact on the students' knowledge of HIV/AIDS and risk behaviour reduction as evidenced by the positive values of scores of respondents' level of knowledge on HIV and AIDS prevention. Drama intervention influenced respondents' increase in knowledge. These positive effects recorded in the intervention groups could be due to the fact that the strategies are appealing, catching attention, influencing memory and motivation as postulated in the Social Learning Theory (SLT) of Bandura, upon which the framework was partly based. Attention is important in learning and one pays more attention to models that are of resemblance to him or her. Same applies to the teachers as they occupy central position in classroom instruction and actors and actress in drama to the audience. This current findings buttressed report from Goffman dramaturgical theory (2005a; 2007) "*Presentation of self in everyday life*". He perceived the "self" not as a possession of the actor but rather as the product of the dramatic interaction between the actor and the audience. Because self is a product of dramatic interaction, it is vulnerable to disruption during the performance (Misztal, 2001). Goffman's dramaturgy is concerned with the processes by which such disturbances are prevented in order to sustain the attention of the audience. This attribute of drama makes the performance of actors and actress successful.

This assertion is corroborated with findings of other earlier documented drama-based intervention, for example in Thailand, 'Talk to people about HIV/AIDS or condom use'. Elkim et al (1997) found substantial significant difference between those exposed to Thai audio drama campaign and those unexposed (68 vs. 48%) for women, 65 vs. 47% for men in the same study significantly more women & men talked with their spouses about AIDS after the campaign than before 43-86% for women, 66-78% for men but no significant difference from control group.

Knowledge on modes of transmission of HIV by respondents increased significantly at midterm and follow-up compared with their knowledge at baseline. This increase was more pronounced among drama intervention group; this showcases the importance of drama for behaviour change communication. Choosing appropriate medium of communicating health messages for a target population of importance, most especially when targeting adolescents. These findings buttressed the report of Asante and Oti-Boadi (2013) who observed that students could identify the various modes of HIV transmission and prevention measures when they have adequate knowledge about HIV and AIDS. The findings of this study agree with WHO (2012) that HIV knowledge encompasses information related to basic facts about HIV and AIDS (causation, mode of transmission, prevention, sign and symptoms, misconception and stigma towards HIV/AIDS. It is important for all especially the adolescents and the youths to have adequate knowledge of HIV/AIDS and risk reduction behaviours because of their vulnerability to adopting negative behaviour if they are not properly guided. This belief are supported by an effective school-based HIV program that rely on the principles of social cognitive learning theory which emphasizes on supportive environment (Green, 2002).

Abstinence was identified as the most effective way to prevent transmission in this study as a result intervention through the drama and partly among classroom instruction intervention group. This finding is similar with Asante and Oti-Boadi (2013) findings that sexual behavioural change remains one of the most effective ways of preventing further

transmission among this vulnerable group. The finding is contrary to the studies by Kirby, Korpi, Barth, et al., (2006) on abstinence programs which focused upon the importance of abstinence from sexual intercourse, typically abstinence until marriage using classroom instruction approach. None of these studies found both a consistent and significant impact upon delaying the onset of intercourse; because the studies could not measure the impact of the great diversity of abstinence-only programs, the possibility remains that some abstinence-only programs might delay the onset of intercourse, but which programs in particular might be effective is not known at this time Knowledge of prevention of HIV infection through decontamination of barbering instrument among the intervention groups is an indication that classroom instruction and drama in particular would achieve a lifelong education in the prevention of HIV. The result is in line with Biadgelegn (2012) which stated that effective and consistent decontamination of barbering instrument is important in preventing HIV transmission in the barbering shops.

A large proportion of the respondents at follow-up in the intervention groups gave a clue to the Olaitan (2002) recommendation that rules and regulations regarding sterilisation of instruments should be adhered to as they affirmed that HIV could be transmitted through the use of unsterilised barbing instruments. Barbers and other professionals making use of sharp instruments should undergo some periods of training in health education to improve their knowledge and practices about sterilization of sharp instruments. Arulogun and Adesoro (2009) confirmed that the risk of transmitting HIV is high in the barber shops. They recommended health education strategies such as training, supportive supervision and peer education to facilitate the adoption of effective precautionary measures against HIV infection among barbers.

Perceived risk of contracting HIV/AIDS

It was observed that the interventions had positive effect on the respondents At baseline majority that did not see themselves at risk of contracting HIV through sharing of skin cutting instruments such as clippers and razors. However, at follow-up, there were changes in attitudes and practices that predispose them to HIV at follow-up period. This really revealed

significance of intervention proffered in the study. Midline evaluation shows that the proportion of respondents who believed that they were at risk increased. At end line, they were of the opinion that they can contract HIV infection through use of contaminated skin cutting instruments. The result showed stronger evidence in increased perception of HIV risk among respondents in drama group than in the control group. Respondents in classroom instruction group showed significant decrease in perceived risk. This agreed with the report of the global AIDS on people infected with HIV (UNAIDS, 2008), that in spite of increasing awareness about HIV/AIDS, there is an illusion regarding personal vulnerability because people seem to be in denial about being at risk of getting infected.

Moreover, studies by Peltzer (2009) in South-Africa and Vaughan (2000) in Tanzania, found that respondents in intervention schools were significantly more likely to perceive themselves personally at risk than before intervention. According to CDC (2014), some adolescents did not believe that they are at risk of infections. Early adolescents perceived that they are at low risk and that it is unnecessary to take preventive measure, but adolescents who perceived themselves to be at higher risk of infection are more likely to take preventive measures.

Perceived severity of problems among in-school adolescents suggest the most important health belief factors in determining whether they will continue with such risk reduction behaviour or not. This is in consonance with Rosenstock model of perceived component which believed that adolescents who perceived HIV infection as threatening and are aware of the mode of transmission and risk reduction skills are more likely to abstain from early sexual activities and other behaviours that predispose to HIV infection. Adolescents who perceived themselves personally at risk of certain behaviours and its consequences serious enough to deserve attention and are convinced that preventive activities are beneficial and at the same time will pose no overwhelming costs; will take preventive measures. This findings agree with Pappas-Deluca et al (2008) in their study using drama intervention programme among Zambians exposed to radio and drama showed having significantly higher belief that they could get AIDS than those who were not. However, one study that investigated the

influence of perceived peer behaviour versus actual peer behaviour on youth risk – taking found that perceived peer behaviour is a stronger determinant (Selran, Ross, Kapadia, Mathai and Hira, 2001). It has been reported that in spite of increasing awareness about HIV/AIDS, there is an illusion regarding personal vulnerability because people seem to be in denial about being at risk of getting infected. Report on the global AIDS infected with HIV (UNAIDS, 2008) confirmed this along line with Gallant and Maticka assessed school-based programmes in sub-Saharan Africa and reported that in most of the programmes that attitudes to condom use and perceived risks are not encouraging (WHO/UNAIDS/AIDS, 2010).

Attitudes towards HIV/AIDS

The ingredient of behavioural change communication strategies explored in this study tremendously brought about to an extent positive effect on attitudes of the respondents in both drama and classroom instruction intervention groups towards HIV and AIDS comparing it to control group. However, use of drama school (E2) yielded more positive attitudes towards HIV/AIDS. Knowledge and attitudes related outcomes were the most associated with statistical change. The obvious positive increase in attitude and knowledge of students from drama intervention group might have been influenced by active participation of students and more lengthy interventions offering the opportunity for repeated exposure to the same theme appeared to be associated with greater effectiveness. This was exemplified by comparing the drama aids intervention by Havey, Stuart, swan (2000) which was longer and employed intense involvement of students compared to booklet intervention group. This also corroborates with Harvay, Staurt and Swan, (2000) in their study titled “Evaluation of a Drama-in-education program” to increase AIDS awareness in South African high schools demonstrated in pupils at school receiving the drama program when compared to pupils receiving written information alone. These changes were independent of age, gender, school or previous sexual experience. The finding agreed with finding by Joronen Rankin and Astedt (2008) in Finland on school -based drama intervention in health promotion for children and adolescents: systemic review by Joronen Rankin and Astedt (2008) in Finland which reported some positive changes mostly concerning knowledge and attitudes related to health behaviour. This current study conclusion is that there is need for well-designed and

theory-based studies that address drama interventions in health promotion for children and families.

The findings of this study revealed to an extent a positive effect of the intervention on subjects' attitude towards HIV/AIDS. The improved attitudes of the subjects as reported in drama group is not surprising and could be linked to drama communication which makes long lasting impression in the mind of the audience after the intervention. This is in consonance with Social Learning Theory (SLT) one of the theoretical framework applied in this study, SLT establish a positive link between increase in health knowledge and resultant improved health attitudes through modelling. The finding also align with finding by Pappas-Deluca, Kraft, Galavotti et al, (2008) on entertainment-education radio serial drama and outcomes related to HIV testing in Botswana, in which ''Makgabaneng'' is an edu-entertainment radio serial drama written and produced in Botswana to promote prevention of HIV. Positive associations were found between exposure to the program and intermediate outcomes and that long term exposure to edu-entertainment programme lowered stigmatizing attitudes and brought about behaviour change. Park (2007) also by saying that attitudes are acquired characteristics of an individual that are not learnt from textbook but are acquired by social learning.

The findings of this study was corroborated with findings of other studies such as Chan et al. (2000) which recorded improved attitudes in a study on the impact of peer education training on HIV and AIDS prevention, knowledge, attitudes and life skills among young adults in Beijing, China. They also asserted that resultant positive attitudes will subsequently influence behaviour practices positively. It also aligns with Onozuike and Eze-Ufodiama (2012) that reported positive change of attitudes toward people living and families affected by HIV and AIDS. Zhou eta al (2011) reported significant improvement on HIV and AIDS knowledge of students of two medical Universities in Shenyang China although they used peer education approach. Similar results were found from a study conducted among secondary school students as all respondents reported positive effects with respect to AIDS-related knowledge and attitudes towards people with AIDS as well as their behavioural interventions (Cacers,

Rossasco, Mandel and Hearst, 1994). This is a welcome development since attitude is a predictor of intentions to undertake any behaviour (Fishbein and Middlestadt, 2000). This finding also agrees with the previous studies which indicated that school-based HIV/AIDS prevention and sex education programme can successfully increase students' knowledge about AIDS, change attitudes towards risk behaviour, delay onset of sexual activities (Brooks Gunn and Paikoss, 1992 Fullerton and Holland 1995).

Some findings from this study are intriguing especially for the classroom instruction that recorded negative mean score despite their positive mean gain score in knowledge of HIV/AIDS. Drawing from HBM model the group was expected to similarly record positive mean gain score toward HIV and AIDS as seen in experimental group 2 Drama. The SLT suggests that when the right information is given there is increase in knowledge which will influence attitudes positively. This could be explained by the reason that attitude are formed over time from multifarious influence existing in ones environment including beliefs, values and tradition among others. This study result outlook might be depending on the emerging age bracket of the study respondents as almost all of them still under the tutelage of parents, teachers, peers and environmental control that can still make them subject to pressure of the significant others.

Risk reduction practices

The intervention had a positive impact on the students. Nine items were used to measure their practices. For example sharing razor and nail cutter in cutting nails; had no significant difference in their risky practices at baseline. After the intervention the proportion of students who reported never sharing razor and nail cutters increased. The most reported increase was shown by students in drama school. The similar reports were received in sharing tooth brushes in the homes, fighting and biting other students and playing with sharp objects, though there was a slight drop in the improvement of students in classroom instruction. It is possible that some students in this classroom instruction were not convinced why they should not play with sharp objects or sometimes such resistance is expected especially when a change in behaviour is desired. According to theory of stages of change by Prochasca and

adoption of innovation, late adopters of change are always expected. For sexual experience among the respondents, majority reported that they had never had sexual intercourse. Targeting these groups comply with the principles of 'Catch them young' and more beneficial with regards to achieving objectives. This finding agreed with conclusion given in Ajuwon (2014 - inaugural lecture) and Gruntt (1977) study which emphasized that early school-based HIV and AIDS risk reduction delivered through schools is one of the way through which the adolescents can be helped to avoid risk taking behaviour and adopt health life style. Similar to Stover and colleagues recent assessment of the effectiveness of AIDS reduction strategy identified that school based programme as basis for other programmes (Stover et al, 2002).

Adolescents are the future generation and need to be equipped with knowledge, positive attitudes, values and skills that help them face these challenges and assist them in making healthy life style choices as they grow. Teacher-led strategies are expected to teach more of values and practical skills with a view to arresting the decline in moral standards. In the same vein, the same applies to HIV and AIDS situation in which schools are being expected to communicate knowledge, instil values and promote behaviours that will enable these children protect themselves against HIV infection. In light of the fact that most injuries sustained by adolescents are related to risky behaviour (cuts, falls, car crashes, alcohol, unprotected sex), much research has been done on adolescent risk-taking, particularly on whether and why adolescents are more likely to take risks than adults. The behavioural decision-making theory proposes that adolescents and adults both weigh the potential rewards and consequences of an action. However, research has shown that adolescents seem to give more weight to rewards, particularly social rewards, than adults do (Litt, Phil and Mmcur, 2001).

This finding is contrary to research on HIV risk among adolescents from the social contexts that studied 750 college juniors and seniors and a review of several other empirical studies of adolescents conducted between 1985-1990, Roscoe and Kruger (1990) which concluded that although adolescents knowledge of HIV transmission might have improved over that past few years, their risk-related behaviours had not. The lives and sexual and reproductive health needs of adolescents may vary considerably across these different groups and culture,

programmes and interventions need to be designed to take that diversity into account. The finding is similar with the finding of the study conducted in rural Kenya among young school boys aged 15 – 19 years to examine the dual risk of unwanted pregnancy and STIs/HIV which revealed that in Kenya, boys perceived sexual activity as part of their initiation into manhood.

According to the boys' impression, failure to have sexual intercourse was seen as carrying the risk of losing status among your peers. Other adolescent risk behaviours are sharing of non-sterile sharp instruments such as those used for barbering, circumcision (Arulogun and Adesoro, 2009). Although most adolescents will grow out of many risk behaviour, preventive efforts are needed to reduce the risk of HIV infection during adolescence. As has been found with other risk behaviours, studies have demonstrated that knowledge about risk is not sufficient for the prevention of HIV risk behaviour. Given the complexity of factors that contribute to risk behaviour, prevention efforts that focus exclusively on knowledge are unlikely to be successful.

Self-efficacy skills in HIV risk reduction

Another positive effect of the intervention is seen in the students' after the intervention at the follow-up period as majority of them demonstrated ability to discuss abstinence as tool for preventing HIV infection, sharing unsterile barbering and shaving instruments, not having sex in the school and telling friends and relatives about HIV and AIDS prevention & transmission. This is encouraging considering the fact that mentioning sex issues etc in our tradition social context is a taboo. This Finding is similar with a study on a review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa by Bastien, Kajula, and Muhwezi (2011) as well as in the study on evaluation of school-based Reproductive Health education Program in the rural South Western Nigeria by Ajuwon & Bridger, (2003) where students successfully discussed reproductive health issues without fear of community or parents disapproval. Self-efficacy perception or self-confidence was associated with a number of risk reduction practices. Conversely it was found that lack of aspiration for future and low Self-efficacy discourages implementation of any program. Self-efficacy is seen as essential for both initiating and maintaining risk health behaviour. Self-

efficacy continues to be enhanced through modelling by peer groups or other students and through performance of mastery (Edutech Wiki, 2011; Bandura 2011; 1986). These findings also agreed with previous studies that have tested efficacy of HIV sexual risk reduction intervention in adolescents between age of 13 to 24 years in United States which showed that intensive behavioural interventions reduced sexual HIV risk (Youth and HIV/AIDS 2003). These conclude that it is relatively easy to effect changes in knowledge and attitudes and self – efficacy skill regarding HIV and AIDS using school based intervention that have been carefully designed to suit Nigeria School environment.

Life building skills (life skills)

Positive effect of the intervention seen in HIV risk reduction is in application of life building skills, such as refusal, assertiveness skills, value clarification, and Goal setting. Providing the adolescents with information, motivation and interpersonal skills needed to avoid sexual risks (e.g. Abstinence) is an important aspect of reducing the spread of HIV and other sexually transmitted infections (Fish and Fisher 2002). Most commonly used skill among female adolescents confirmed is refusal skills. From the words of two respondents during FGDs "we refused to go to the bush with boys to have sex in the school and outside the school". The boldness of the female students to speak out is encouraging since sex is traditionally a very private subject and the discussion of sex with teenagers is often seen as a taboo or inappropriate. Providing them with life skill-based HIV risk reduction skills may equally be considered inappropriate. This findings, however differ from results of one survey that suggest that a co-educational school setting tends to inhibit free discussion of reproductive health matters issues, while single sex schools created a free environment for such discussion (Oladepo and Brieger, 2003).

Another findings that supported the life building skills was from the study conducted by Yankah and Aggleton (2008) on effect and effectiveness of life skills education for HIV/AIDS education for HIV prevention in young people, worked best to positively influence knowledge, attitudes, intentions, skills and abilities. They are of the opinion that life skill building training be used as a component of the overall education strategy. According to them, for nearly 20 years' life skills, education has been advocated as key

components of HIV and AIDS education for children and young people, and in 2001, it was adopted by member states represented in the United Nation General Assembly Special Session on HIV and AIDS prevention. Adolescents are the future generation and need to be equipped with knowledge, positive attitudes, values and skills that help them face these challenges and assist them in making healthy life style choices as they grow.

Effect of Classroom Instruction and Drama-based communication of HIV/AIDS and risk behaviour reduction of the respondents

Findings of the study show the drama had a general positive effect on HIV/AIDS knowledge Attitudes, Self-efficacy and Life building skills and Risk reduction behaviour of the subject evidenced by the increased mean gained scores of the respondents at the end line. The significance increase as recorded could be because drama encompasses attention, memory and motivation as derived from social learning Theory SLT of Bandura, upon which the framework of this study was party based. Attention is important in learning and one pays move attention especially where the scene is captivating and interesting to the respondents as demonstrated in this study. This assertion corroborates with the finding of other related studies earlier conducted on knowledge such as the result of previous studies of secondary school by (Osowole, 1998 and ARFH, 1998) that knowledge can increase after an educational intervention. Osowole and Oladepo (2000) in their study of effect of peer education on deaf secondary school students HIV/AIDS knowledge, attitude and sexual behaviour in Ibadan, found that peer education had positive effect on HIV/AIDS knowledge though they tested peer education as a strategies.

Adolescence is a period of impressionistic stage in human development with high affinity for peers, use of internet attract their interest which is their main source of sexual health related information to satisfy their unending quest for such information. They learn more because internet browsing and watching of different types of films catches their attention and attention is very necessary in sustaining learning. Moreover young people are inquisitive and particularly interested in sexual issues as they explore and venture into it if not early prepared

morally before they get to adolescence stage. These behaviours put them at greater risk of contracting HIV infection.

Implication of Findings for Health Education

The study has shown from its findings that drama–based communication and classroom instructions had positive effect on HIV/AIDS Knowledge and risk reduction behaviours among in-school adolescents, as reflected in the positive mean gain scores of the respondents. Both strategies are interactive but one is more effective than the others. From this study, drama was observed as the most efficient instrument to bring about behaviour change. The characters and the dramatic situations discussed are remembered long after the performance. Drama can therefore be employed as a veritable strategy for addressing low knowledge of HIV/AIDS and risk reduction behaviours. These preferential attitudes of students in watching movies brought about the shift to drama communication which has implication on the effect of Drama intervention on HIV/AIDS knowledge and risk reduction behaviour. The younger adolescents (early adolescents) who just entered the secondary schools should be priority targets for implementing school-based.

HIV/AIDS risk reduction behaviour using drama communication either independently or in combination with classroom instruction. Targeting these groups comply with the principle of 'Catch them young' and more beneficial with regards to achieving objectives. The National HIV/AIDS and educational policy has the adolescent health policy as a component. The policy identifies the importance of upholding and protecting the rights of people living with or affected by HIV/AIDS, addresses the vulnerability of certain social groups including women and children, adolescents and youths, to the HIV/AIDS epidemic and develops appropriate measures to the debilitating effects of the epidemic. The governments of Nigeria should collaborate with bilateral and multilateral organizations in the implementation of the adolescent health policy/programmes. The policy added that given the fact that the adolescent' health problems vary from one socio-cultural setting to another; the adolescents' programme shall constitute adolescents' reproductive health, sexual health knowledge. STIs/HIV risk reduction behaviours, nutrition, drug abuse, education, parental

responsibilities and social adjustment among others in the proposed family life and HIV/AIDS education curriculum. The policy emphasizes active participation of adolescents in health plans and interventions.

The findings of this study will make the relevant authorities of governments, educational institutions, program designers and non-governmental organizations working with youths and adolescents in the area of HIV/AIDS and sexuality issues be aware of and sensitive of drama-based communication strategy with the view to embracing the strategy, for positive outcome It is also believed that empowering adolescents with basic facts about HIV/AIDS early in life through school -based setting would help them appreciate the need to adopt healthy life saving skills and desirable healthy sexual behaviour as they grow.

Policy Implications in the Findings of the Study

The National HIV/AIDS and educational policy has the adolescent health policy as a component. The policy was drafted and approved by all arms of government in the year 2000. The policy identifies the importance of upholding and protecting the rights of people living with or affected by HIV/AIDs, addresses the vulnerability of certain social groups including women, children, adolescents and youths, to the HIV/AIDs epidemic and develops appropriate measures to the debilitating effects of the epidemic. The policy adds that 'given the fact that the adolescent's health problems vary from one socio-cultural setting to another; the adolescents' programme shall constitute adolescent 'reproductive health, sexual health knowledge. STIs/HIV risk reduction behaviours, nutrition, drug abuse, education, parental responsibilities and social adjustment among others in the proposed family life and HIV/AIDS education curriculum'. The policy thrust includes the following:

- To obtain and instil sound and appropriate knowledge of RH issues in adolescents,
- To create appropriate climate for policies and laws necessary for meeting adolescents health needs,
- To train and sensitize adolescents and other relevant groups in the skills needed to promote effective health care and healthy behaviour among others.

The current effort being made by Nigerian Government to address the reproductive health (RH) as well as adolescent reproductive health (ARH) issues was informed by the increasing rates of HIV/AIDS among adolescents and young adult people in the country. The first step taken by Government was the issuance of this policy known as National Reproductive policy and strategy. The objectives of the policy were to achieve quality reproductive and sexual health for all Nigeria (FMOH, 2001) Abuja. The next step was sponsoring of a forum in July, 27th 2005 under the auspices of National action on AIDS (NACA) to discuss issues relating to ARH problems. The forum comprised of the Education commissioners of all the 36 states of the Federation. At this forum, the federal Government through the then minister of Education announced the integration of the study of HIV/AIDS into the school curriculum. All the states of the federation agreed to implement the proposed family life and HIV/AIDS education (FLHE) in accordance with the socio-cultural background (The Punch, 2006).

It is worthy of note that the FLHE curriculum is still controversial but in some states the implementation is gradually gaining ground. In Nigeria, early efforts of implementation of FLHE had suffered a setback due to several factors. These factors include, fear that the education will encourage sexual promiscuity, taboo on open discussion on sex in the society and religious consideration (Barker, 1992 and Action Health Incorporated, AHI, 1999). Unfortunately, interventions addressing HIV/AIDS and risk reduction behaviours among adolescents are limited. Strategies needed to communicate HIV/AIDS are scarce. Adolescents' sexual risk continually increased putting them at risk of STIs including HIV. These situations threaten the old policy making it seen as been ineffective.

It is against this background that this study was obliged to investigate two educational interventions, classroom instruction and Drama- based communication on HIV/AIDS knowledge and risk reduction behaviours among in- school adolescents.

The findings of this study revealed to a large extent a positive effect of drama-based communication and classroom instruction interventions on the respondents. The findings have established that Drama–based communication and classroom instructions have positive

effect in addressing HIV/AIDS and risk reduction behaviours of in-school adolescents in Orlu Zone. These findings have policy implications and provide the empirical evidence required to validate any policy reforms required to be made on present policy to incorporate Drama–based communication strategy with the view to ensure more strategic and successful outcomes in the formal educational system with regards to ongoing HIV/AIDS prevention programmes. Policy brief document developed from findings of this study will be communicated to Ministry of Education and other stakeholders of education for review and consideration.

The policy recommendation emphasizes active participation of adolescents in health plans and interventions as evidenced by the mechanism through which the results in the study were obtained. The government of Nigeria should collaborate with bilateral and multilateral organizations in the implementation of the adolescent health policy/programmes.

Summary

This study acknowledged the great need for interventions aimed at increasing knowledge of HIV/AIDS and risk reduction behaviours targeting adolescents in- school education. The study was carried out to evaluate the effectiveness of two interventions (classroom instruction and drama base communication intervention on HIV/AIDS and HIV/AIDS risk reduction practices among in-school adolescent in Orlu senatorial zone Imo State. One hundred and sixty-five secondary schools were selected. Imo State rural secondary schools with inclusion criteria of being public secondary school, co-education rural located and same class of junior secondary school class II (JSSII). Reason being that they would not leave the school before the end of the interventions and that they are sexually naive.

The selected schools were assigned to the interventions and a control. Two strategies Classroom Instruction and Drama were used to communicate HIV/AIDS and risk reduction behaviours for two months after baseline survey. At the end of the intervention immediate post intervention evaluation was conducted, Three months after follow-up evaluation was

conducted. Overall results showed that the interventions generally have impact on the subject:

(1) Use a drama-based communication was found to be a more effective tool for addressing HIV/AIDS knowledge and risk reduction promotion

(2) Finding also suggests that school-based intervention can reduce HIV/AIDS infection and risk reduction practices among in-school adolescents.

(3) It has significant effect on perceive risk of contracting HIV/AIDS which is a prerequisite for seeking for behaviour change.

(4) It has significant positive effect on adolescents' ability (self-efficacy) in discussing sexuality issues such as HIV/AIDS related health problem among their peers.

(5) Another interesting finding is the ability of the students to use life building skills to protect themselves without stepping on others toes.

The study demonstrates the values of using a theoretical frame work to understand health behaviour. Such findings can be useful in designing adolescent and youth specific intervention aimed at influencing a specific behaviour. In this case, social learning theory offered the best explanation for the observed behaviour of not sharing skin-cutting instruments, fighting and biting other students, playing with sharp objects and not involving themselves in sexual activity at their age. Self-efficacy element of the SLT played a vital role in increasing HIV/AIDS knowledge and risk reduction practices evidenced by the respondents' ability to talk to their peers.

Most prominent is that the result also acknowledges the great need to integrate drama in development program. School-based HIV risk reduction intervention using drama among early adolescents will take cognizance of other risk behaviours likely to endanger their lives. The researchers also concluded that it is relatively easy to effect changes in HIV/AIDS knowledge and risk behaviours among junior adolescents through school-based intervention that have been carefully designed to suit our own environment. Overall, significant improvement in knowledge, attitude, perceived risks, self-efficacy, life-building skills and risk reduction practices by use of Drama than their counterparts from use classroom

instruction school is most impressive. Generally, the intervention exercise had succeeded in improving adolescent knowledge of HIV/AIDS and risk reduction practices. Drama-based communication is more beneficial in conveying HIV/AIDS and risk reduction massages. It is the most efficient instrument to bring about behaviour change, if guided by skilful facilitators and back up by empowering and supportive structure, like a development program.

Conclusion

This study demonstrated the impact of School–based HIV/AIDS knowledge and risk reduction behaviours among in-school adolescents in rural areas of Orlu, Imo State. The study utilized two strategies for the intervention which include Drama-based communication and Classroom instruction educational interventions. This study confirms the fact that schools are major socializing institution in Nigeria. It also demonstrated that early school-based HIV/AIDS knowledge and risk reduction delivered through schools is one of the ways through which the adolescents could be helped to avoid risk taking behaviour and adopt healthier life-style (Brunner, 2003; Stover *et al*, 2002).

The study demonstrates the values of using a theoretical frame work to understand health behaviour. The results of the study were found to be consistent with Social Cognitive Theory which has successfully established in this study the relationship between the adolescents' HIV/AIDS knowledge and risk reduction behaviour. Self-efficacy element of the SLT played a vital role in increasing HIV/AIDS knowledge and risk reduction practices evidenced by the respondents' ability to talk to their peers.

This suggests that early adolescents can equally influence their peers in HIV/AIDS risk reduction behaviour. This also suggests that the result of this study can be generalized to in-school adolescents in similar rural communities.

Recommendations

1). It was observed that school-based HIV/AIDS knowledge and risk reduction intervention proved to be important in reducing the HIV risk behaviour. It is therefore recommended to be adopted in school system in the study area.

2). Drama-based communication has special attribute that makes lasting impression in the mind of the learners and also enable a sustainable experience. It is therefore recommended be adopted in the schools as a veritable strategy for addressing HIV/AIDS knowledge and risk reduction behaviours.

3). Drama be integrated in the national development programmes by the programme designers and implementing agencies for extensive dissemination of HIV/AIDS information for out-of school adolescents, youth and adults. This will be of great relevance to policy makers and programme planners

4). A combination of classroom instruction and drama should be adopted by all schools in the teaching of the Family Life and HIV/AIDS education in the school curriculum in the country.

5). Life- building skills (Life–skills): These skills are found significant in this study, as they increased the adolescents' ability to protect themselves against HIV infection (e.g. refusal, assertive etc), they are also recommended for inclusion in AIDS education in the schools.

6). Parents, teachers and sex educators should be more involved in HIV/AIDS education and prevention strategies since they scored low among source of information on HIV/AIDS knowledge and risk reduction. Parents for instance, should be encouraged to discuss reproductive health issues such as primary and secondary sex characteristics at puberty, adolescence and youth stages and emphasize abstinence with their children.

Suggestion for further studies

1. Future studies should assess student's risky behaviours and attitudes towards HIV/AIDS risk reduction behaviours, to help provide a comprehensive understanding of HIV/AIDS risk reduction preventive measure among in-school adolescents.
2. More studies to be conducted using Drama as a strategy for change of attitudes towards HIV/AIDS and risk reduction behaviours.

3. Attitudes towards HIV/AIDS knowledge and risk reduction behaviours among in-school adolescents be conducted in other rural secondary schools in Imo State not covered

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APPENDIX I

FOCUS GROUP DISCUSSION (FGD)

Introduction,

Greetings: My name is ……..

The purpose of the Focus Group Discussion is to collect information on HIV and AIDS, mode of transmission, Prevention and Risk reduction Practices among adolescents in school. We are not judging where you are right or wrong, all that is required is your own opinion. The information we will gather will be used to plan educational programme that can help protect students against HIV infection. The discussion will be recorded in Audio tape to enable the researcher document all that is discussed today. However we will not release any information in any way that identifies any individual. Are you willing to participate?

All participants who give consent to take part will be requested to give brief demographic details and sign form {if they are willing, if not, they can do so by giving oral consent with a witness e.g. teacher}.

We thank you for agreeing to participate in the discussion

Discussion guide

1. What are the health issues that concern adolescents in the schools?
2. What are the specific concerns the adolescents in the school have about HIV infection?
3. What do the adolescents in school know about HIV and AIDS? Probe for where they first heard, knowledge of causation, how it is spread, ,common ways through which students can contact HIV signs and symptoms, school adolescents who are at risk of contracting HIV, ,appearance of a person infected with AIDS.
4. What type of people do students talk to about HIV and AIDS? Probe for the ones that they feel are the most important source of information and the most credible. Probe for reasons
5. Why do students play sex in the school? Probe for reasons.
6. How do the adolescents in the school protect themselves against HIV infection, Probe for what girls and boys do to protect themselves against HIV infection at personal level.
7. What things do students do to avoid getting HIV infection? If not mentioned ,probe abstinence from sex, use of sterile barbing and shaving instruments, not sharing tooth brushes and whether students perceive themselves at risk of getting HIV infection.

8. What things do the students, who are unwilling to have sex usually, do when confronted with a situation in which someone wants to have sex with them? Probe for whether they apply refusal skills, negotiation skills and assertive skills
9. What type of skills do adolescents need to protect themselves against HIV infection? Probe for refusal skills, negotiation skill and assertive skills
10. What do you know about HIV screening test? Probe whether students will be willing to know their HIV status? If no probe for reasons
11. What views do students have about admitting students known to have been infected by HIV into the school?
12. What opinions do students have or likely to have about instituting school –based HIV/AIDS intervention programmes in this school? Probe for opinion on the use of classroom teaching or use of drama. Which of the two will be more preferred?

APPENDIX II

QUESTIONNAIRE

SCHOOL–BASED HIV/AIDS RISK-REDUCTION INTERVENTION PROGRAMMES AMONG ADOLESCENTS IN ORLU SENATORIAL ZONE,

IMO STATE, NIGERIA

Greetings:

My name is _____ from _____ _____ The purpose of this interview study is to collect information about HIV and AIDS mode of transmission and prevention; attitudes towards HIV and AIDS and risk reduction practices among secondary school Children .If that is the case will you kindly assist us in answering some questions .Information gathered will be used to improve the health services of the school children. All information gathered will be kept strictly confidential. Your individual answers will not be shared with another person. Are you willing to participate? Thank you for your help.

Date_____ Location:_____

I.D No_____

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION.

1. Please tell me your age……as at last birthday
2. What is your sex? 1. Male ☐ 2. Female ☐
3. What is your parent's marital status? 1. Single ☐ 2. Married ☐
   3. Divorced/Separated ☐ 4.Widowed ☐ 5. Others……
4. What is your religion? (A) Christianity: ☐ 1. Catholic ☐ 2. Anglican ☐
   3. Baptist ☐
   4. Methodist ☐ 5. Pentecostals ☐ (B) Islam ☐ (C) Traditional ☐
   (D) Others (specify) ……..
5. Ethnic group? 1. Ibo ☐ 2. Yoruba ☐ 3. Hausa ☐ 4. Others …….
6. Residence 1. Rural ☐ 2. Urban ☐
7. Local Government of Origin?……
8. a. How many children do your parents have? …….
   b. What is your position among the children?……
9. Family type: 1. Polygamy ☐ 2. Monogamy ☐ 3. Single Parent ☐
10. Age at first intercourse _____ years (0). No experience ☐

11. a) Your mother's educational qualification? 0. None ☐ 1. Primary ☐
2. Junior secondary ☐ 3. Senior secondary ☐ 4. Post-secondary ☐
b) What is her main occupation? 1. Trading ☐ 2. Farming ☐ 3. Civil servant ☐
4.Housewife ☐ 5. Others (specify) ……..
12. Your father's educational qualification? 0. None ☐ 1. Primary ☐
2. Junior secondary ☐ 3. Senior secondary ☐ 4. Post-secondary ☐
13. What is his occupation? 1. Trading ☐ 2. Farming ☐ 3. Civil servant ☐ 4. Househusband ☐ 5. Others (specify) ……

SECTION B (1): Knowledge of HIV and AIDS (A 21point knowledge scale)

14. What does AIDS stands for? (Acronym)
……

15. Are HIV and AIDS real? 1. Yes ☐ 2. No ☐
16. Do HIV and AIDS exist in Nigeria? 1. Yes ☐ 2. No ☐
17. Do AIDS kill? 1. Yes ☐ 2. No ☐
18. Can a healthy looking person be HIV positive? 1. Yes ☐ 2. No ☐
19. Secondary school students can get HIV through the following (tick true or false). (Attempt all questions).

S/No	Statement	True	False
1	Sharing skin-cutting object with infected person		
2	Sharing of tooth brushes with an infected person		
3	Hand shaking with infected persons		
4	Biting infected person during fighting		
5	Insect bites like mosquitoes		
6	Touching of an infected person		
7	Transfusion with blood from an infected person		
8	An infected mother to her unborn child		
9	Mother-to-her unborn child		
10	HIV can be spread through sexual intercourse with infected persons		

11	HIV can be spread through sharing toilets		
S/No	**Statement**	**True**	**False**
12	HIV can be spread through unsterile needles and syringes		
13	HIV can be spread through having more than one sexual partners.		
14	You can tell if a person has HIV by the way he looks		
15	People who choose only healthy looking partners won't get HIV		

SECTION B (2): Knowledge about prevention of HIV (A 8 point knowledge scale on prevention of HIV/AIDS)

20. Please indicate if HIV infection among adolescents can be prevented by ticking true or false) to the questions inside the box below.

S/No	**Statement**	**True**	**False**
1	Total abstinence from sex till married		
2	Avoid sharing skin cutting object with infected person		
3	Avoid contact with blood and blood products from infected person.		
4	By staying with a person living with HIV and AIDS		
5	Avoiding accidental cuts		
6	Avoid touching person who has AIDS		
7	Use of condom		
8	Not having more than one sexual partner		

SECTION B (3): Awareness of HIV/AIDS

21. Have you heard about HIV/AIDS before? 1. Yes ☐ 2. No ☐

22. When did you first hear about HIV/AIDS? …….

23. What have you heard about HIV/AIDS?

1_____

2. _____

3. _____

24. Where did you hear about HIV/AIDS? (Tick as many as applicable to you)

1. Radio ☐
2. Television ☐
3. School mate ☐
4. Friends ☐
5. Teachers ☐
6. Drama ☐
7. Health workers ☐
8. Others ☐

25. Which of the answers below will confirm if someone has HIV?

1. Cannot tell ☐
2. Looking skinny ☐
3. Having skin rashes ☐
4. Laboratory test ☐

SECTION C: ATTITUTUDE QUESTIONS (A 9 point attitudinal Scale)

26 (Tick Agree, disagree or undecided)

S/N	Statement on attitude	Agree (1)	Disagree (2)	Undecided (3)
1	People who have AIDS should be forced to live far away from other people			
2	I will be happy to be in the same classroom with somebody who has AIDS			
3	I will be happy to shake hands with a friend who has AIDS			
4	I will feel safe if I am staying close with a classmate with HIV or AIDS			

5	It is alright to play with sharp instruments			
6	It is a good idea for adolescents to delay sex until they are married			
7	A teacher living with HIV and AIDS should continue to teach if not sick			
8	People with AIDS are receiving the reward of their sins			
9	Students with HIV and AIDS should be isolated			

SECTION D: Risk Reduction Practices

27 How many times have you practiced any of the following since you were admitted to this school? Tick appropriately

	Statement	**Risk Reduction Practices**			**In what situation?**			**How long ago?**	
		Never	Once	Twice	In school	Outside school	Where else	One month ago	Two month ago
1.	Playing with sharp objects								
2.	Sharing tooth brushes in your homes								
3.	Sharing of razors and nail cutters in cutting nails								
4.	Fighting and biting other students								
5.	First-aid treatment of injured students without gloves								
6	Sharing your clothing's with other students								
7	Having sex while in school								
8	Having sex while outside school								
9	Transfusion of blood								

SECTION E. Perceived Risk of HIV/AIDS:

28. Tick yes or no to the following question

S/N	Question	Yes	No
1a.	Are you personally at risk HIV/AIDS?		
b.	What do you think is the reasons for your answer?.....…….…….....		

S/N	Question	Yes	No
2	Do you personally perceive yourself been infected by HIV through sharing clippers and razor blades for barbing?		
3	Do you believe you could get AIDS through sharing tooth brushes?		
4	Do you think you have chance of contracting HIV?		

29. Do you know where one can be tested for HIV? 1. Yes ☐ 2. No ☐

30. Have you ever been tested for HIV? 1. Yes ☐ 2. No ☐

{IF 'No' move to number 37} {If 'Yes' do not answers number 37}

31. How long ago have you taken the HIV test? 1. Under six months ☐
2. Six - Twelve months ☐
3. Twelve & above ☐

32. Where did you go for the HIV test?
1. Laboratory ☐
2. Hospital ☐
3. Clinic ☐
4. VCT centre ☐
5. Others ……

33. What was the reason for going for the HIV test?
1. To know my status ☐
2. Donate blood ☐
3. Surgery ☐
4. Illness ☐
5. Others…….

34. Did anybody counsel you before you did the HIV test? 1. Yes ☐ 2. No ☐

35. Did anybody counsel you after the HIV test? 1. Yes ☐ 2. No ☐

36. Would you have felt better if counselled before HIV test? 1. Yes ☐ 2. No ☐

37. Why do you not want to take the test?

1. Don't want to know my status ☐
2. Fear of positive result ☐
3. Afraid of the stigma attached ☐
4. Cannot afford the test ☐
5. Not necessary ☐

38 Would you like to do HIV test if you were offered with full confidentiality?

1. Yes ☐ 2. No ☐ **{If 'No' move to number 40}**

39 If yes, why would you desire to take the HIV test?

1. To put my mind at rest ☐
2. For marriage purposes ☐
3. Employment reasons ☐
4. To get treated if I have it ☐
5. To protect my friends/ spouse/ family ☐

40. Can AIDS be cured? 1. Yes ☐ 2. No ☐ **{If 'No' move to number 42a}**

41. If yes, What type of cure are you aware of?.....

42a. Do you know of any drug that can reduce HIV in the body? 1. Yes ☐ 2. No ☐

{If 'No' move to number 46}

42b. If yes, name the drug(s) ..……

43. Do you know where somebody can get these drugs? 1. Don't know ☐

2. Chemist/ pharmacist ☐
3. Government hospital ☐
4. Private clinic ☐
5. Laboratory ☐
6. Others……

44. Do you know anybody who has taken this drug? 1. Yes ☐ 2. No ☐

45. Do you know if the person was better after taking this drug? 1. Yes ☐ 2. No ☐

SECTION F: Self-Efficacy Skills

46. Answer the following questions: how confident do you feel to do each of the following things in respect to HIV risk reduction in the box below (indicate whether you are confident, not confident and uncertain)

S/N	Question	Confident	Not confident	Uncertain
1	Tell friends and relatives about HIV/ AIDS			
S/N	**Question**	**Confident**	**Not confident**	**Uncertain**
2	Discuss abstinence from sex with my friends			
3	Discuss sharing of unsterile barbering and shaving instrument			
4	I will tell others about risk in playing sex in school			
5	Will feel good talking to friend to abstain from sex till married			

SECTION G: Life Building Skills

47. Are you aware of any life building skills that can be used in protecting you against HIV/AIDS (1) Yes ☐ (2) No ☐

48. Which of the following skills have you used to protect yourself against HIV?

Tick	Yes	No
a) Refusal: Refusing to have sex until you are married	☐	☐
b) Negotiation-Resisting not to have or have unprotected sex	☐	☐
c) Assertiveness: Saying no and stand by it without hurting whoever that approaches you for sex	☐	☐
d) Self-esteem: Cannot confidently have sex at this age	☐	☐
e) Making decision: Making up your mind to whether or not to have sex at this age	☐	☐

f) Value clarification: Seeing yourself more precious to your parent and your community than to be sexually dented by anyone ☐ ☐

g) Goal setting: Having the mind of attaining your educational goal before going into sexual relationship ☐ ☐

h) Communication and counselling: Persuading your friends to abstain From sex till they get married ☐ ☐

Thank you for participating in this important study.

APPENDIX III

Approval for the study

GOVERNMENT OF IMO STATE OF NIGERIA

Telegrams:
Telephone:
Your Ref:
Our Ref: MOE/PSE/SEC.812/45
(All Replies to be addressed to th (Hon.) Commissioner)

MINISTRY OF EDUCATION
Universal Basic & Sec. Edue. Dept.,
DIVISION
OWERRI
6th June, 2012

Ezeama Martina C.,
Department of Nursing,
Imo State University,
Owerri.

RE: APPLICATION FOR PERMISSION TO CARRY OUT A RESEARCH STUDY IN MIXED - SEX PUBLIC SECONDARY SCHOOLS IN IDEATO SOUTH, NJABA, AND ORU WEST LGAS, IN ORLU SENATORIAL ZONE, IMO STATE

I am directed to refer to your letter dated 2nd November, 2011 on the above subject and inform you that the Honourable Commissioner has granted you permission to carry out a research study in mixed - sex public Secondary Schools in the above named Local Government Areas of Imo State.

Dr (Mrs) Obi, A. U.
for: Hon. Commissioner

APPENDIX IV

PERMISSION LETTER TO THE PARENTS OF THE PARTICIPANTS

Dear Parents/Participants,

PERMISSION TO PERTICIPATE IN HIV AND AIDS RISK REDUCTION INTERVENTION PROGRAMME

Your permission is kindly requested to allow your child to participate in the above stated programme which will be in the form of lecturers, group discussion, role play and drama. The aim of the programme is to reduce the adolescents HIV/AIDS risk reduction practices such as sharing unsterilized instruments for barbering and shaving (clippers, scissors, razors and knives), sharing of tooth brushes in the homes fighting and biting, paying with sharp objects and engaging on an unprotected sexual behaviours.

At the end of the exercise, your child will be expected to impact the acquired knowledge to his/her colleagues. It will be extra-curricular activities so that it will not conflict with his/her formal classroom teaching/learning.

Your child has right either to participate or not. However his/her participation will be highly appreciated The study will last for 3 months and it will assist his/her to gain more knowledge about HIV/AIDS transmission, prevention and skills to protect his/her self from HIV infection.

Thanks you for your usual cooperation.

Yours faithfully,

Ezeama M. C.

_____ _____

Signature of participant: Signature of parents or caretaker:

Form 1: Informed Consent

Assessment goal

We would like you to take part in the research on school based HIV and AIDS risk reduction intervention program among secondary school adolescents in Orlu Senatorial Zone in Imo State. Your school has been selected for this important study.

Your role participation

Your participation is completely voluntary and there is no penalty for refusing to participate. Your refusal to participate will not affect you in any way. You may decide to stop your participation at any time.

Possible risks and benefits

There is a small chance that some people feel uncomfortable talking in groups. Otherwise there is no risk associated with your participation.

Confidentiality

Every information you give during the data collection (questionnaire & focus group discussion) remain strictly confidential. No one except the FGD moderator, note-taker and the interviewer will know that you took part in this assessment. The FGDs will be tape recorded with voice recorded only. Note takers will summarize opinions of the group during the sessions. We will not record your name or any other personal information about you. Your opinion and thought will be reflected in the assessment report without any identification by name. The participants will be requested and encouraged not to reveal outside the group information they may have heard during the FGDs.

The consent form should be signed by each individual subject.

I volunteer to participate and have been given a copy of this form. I understand my participation is voluntary and I can stop at any time.

Name…… Signature……

Date…….....

APPENDIX V

Intervention Curriculum

CURRICULUM FOR TRAINING SECONDARY SCHOOL ADOLESCENTS ON HIV AND AIDS RISK REDUCTION PRACTICES

Introduction,

Increasing rate of HIV infection among the young constitutes a severe threat to the future health and well-being of the adolescents (Ebhohimhen, Poobalan and Teijlingen, 2008). Millions of these adolescents are affected by problems of infections and burden of living with HIV and AIDS. Sero-prevalence surveys reveal that the segments of population mostly affected are adolescents and young people aged between 15-29 years. National HIV prevalence 4.6%. In Imo state HIV prevalence 5.6%. HIV prevalence among adolescents aged 15-24 years: 2.2% in Urban, Rural 3.4%. In Orlu site status the prevalence was 6.3% higher than state prevalence rate (FMOH 2008). HIV prevalence among primary school children was 3.5% and secondary was 7.8% (Imo SACA, 2002).

A significant proportion of Nigerian adolescents engage in risky practices such as sharing of unsterilized sharp instruments used for barbing (clippers, scissors, razors, knives) sharing toothbrushes in their homes, playing with sharp objects and unprotected sex. Study on potential risk of HIV transmission in barbering practices among professional barbers in Ibadan revealed that clippers and scissors are the major sharp instruments for HIV transmission (Arulogun and Adesoro, 2002).

Children and young people need to be equipped with adequate knowledge, instill values, practical skills, postive attitudes that will assist them in making healthy life style choices as they grow and protect themselves against HIV infection.

In view of the above stated facts the researcher developed curriculum for teachers (TEACHERS CURRICULUM) based on the result of her baseline study on HIV and AIDS risk reduction for her intervention. This curriculum is a resource for teachers. It is meant to familiarize the teachers with the developed materials and also to equip them with adequate and appropriate knowledge and skills required to deliver this materials to JSS2 students. The curriculum has six modules. It is expected that the impacted knowledge and skills will lead to a sustainable behaviour in risk reduction practices among the adolescents.

Module 1: INTRODUCTION TO TRAINING/ CLIMATE SETTING

INTRODUCTION

Topic 1: Introduction to Training/ Climate Setting

Duration: 30 minutes

SESSION OBJECTIVES

At the end of the session students should have;

1. Completed the attendance sheet
2. Known each other (Trainees and Trainers)
3. Participated actively in all session

RESOURCE MATERIALS

- Flip sheets
- Permanent markers
- Copies of pre test
- Writing materials
- Name tags

METHODS/ CONTENTS

Start by welcoming the students warmly as they come into the training hall. Ensure the students have a feeling of being welcome, appreciated and being treated with respect.

- Issue students name tags.
- Tell the students that the session is to get all of us to know each other better

LESSON TRAINING PLAN / LOGISTICS

- Tell the students the daily lesson training plan. Ask for comments and respond
- Explain to the students that it is important to set rules that will guide everyone to ensure the success of the training
- Ask a student to volunteer to write down the training rules on the flip chart
- Leads the discussion

- Comments/ suggestions may include:
    a. Coming to session on time; no lateness
    b. Asking to recognize before speaking
    c. No shouting people down
    d. Having their snacks at the right time.
    e. Penalty for offenders

Ask the participants to approve the rules set by them by signing the flip charts.

NOMINATION OF GROUP AND COMMITTEE

Tell the students that it is very important to set up a committee that will assist in ensuring the success of the training programme.

- Ask students to suggest the type of committee to set up

  Suggest may include:

  a. Social Welfare
  b. Evaluation
  c. Information

Ask students to volunteer as members of each committee and to nominate a leader; facilitate the nomination and ensure that females are fully represented.

EVALUATION

- Mention two participants and facilitators in your class

Topic 2: Training goals and objectives

Duration: 15 minutes

Session Objectives:

By the end of the session, students will be able to

1. Explain the goal of School- based HIV/AIDs risk reduction training programme
2. Mention 4 objectives of the adolescent HIV/AIDS prevention training programme

RESOURCE MATERIALS

- Flip sheets
- Flip sheets stand
- Permanent markers
- Writing materials

A. INTRODUCTION

Introduce the session by explaining to students that, it is important for them to understand the goals and objectives of the training, so that they can work towards the achievement of the training goal

- Explain that a "Goal" as where we are going or an end point while objectives are the various steps which leads to a goal
- Ask the students to mention what they hope to achieve from the training programme
- Note responses and encourage participants to be committed and dedicated

B. TRAINING GOALS AND OBJECTIVES

- Display the flip chart on training goal and objectives
- Explain the training goal and objectives as follows:

1. TRAINING GOAL

To train selected participants (teachers) who can provide factual and honest information and counsel on issues related to HIV/AIDS, causation, mode of transmission, prevention risk and risk reduction practices to other young people

2. TRAINING OBJECTIVES

- To update participants' knowledge of HIV/AIDS
- To build participants' skills in protecting themselves against HIV infection
- To enhance risk reduction practices among adolescents
- Facilitate the creation/ development of school HIV clubs

Ask a few participants to volunteer to read the goal and objectives in turns

- Explain the goals and objectives to ensure understanding of the issues
- Encourage questions and respond accordingly
- Explain the importance of full participation by the students

C. SUMMARY

Summarize stating the training goals and objectives again.

D. EVALUATION

Ask students the following questions

1. What is the goal of this training?
2. State 4 objectives of the training

MODULE 2: OVERVIEW OF HIV/ AIDS

Topic 1: Basic facts on HIV/AIDS

Duration: 1 hr.

LEARNING OBJECTIVES

At the end of the session, participants will be able to:

1. Explain the meaning of HIV
2. Explain the meaning of AIDS
3 Explain how HIV affects the body

RESOURCE MATERIALS

- Flip sheets
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

A. INTRODUCTION

Start the session by informing the students that they, the youth, represent the nation's future and the development of Nigeria rests in their hands. However, there is an infection whose spread if not stopped, may deny Nigeria youths a wonderful future. The name of the infection is HIV.

B. DEFINITION OF HIV

1. Ask the participants to explain the abbreviation HIV
2. Note all the responses and provide the explanation as follows

The abbreviation HIV means

H – Human (infects only people)

I – Immunodeficiency (making body soldiers weak)

V – Virus (tiny germs that cannot be seen with naked eyes)

3. Explain to the participants how HIV affects the human body

HIV is a virus that infects human beings and causes a lowering of the body soldiers to fight certain infections. It affects the body's protective system (immune system) making the body weak and less able to fight off diseases and infections. From the time a person is infected, he or she can be affected, he or she can infect others even if no signs are visible. However, certain drugs have been developed that help prolong the lives of persons living with HIV if the virus is detected early.

4. Ask the one or two participants to volunteer to explain what the letter AIDS means
5. Note their responses on the flip sheet
6. Provide the explanation as follows

A – Acquired (Means that one gets the disease from somewhere else and that the body does not manufacture it that has been 'given' to someone)

I – Immune (A word for reaction in our body which prevents us from becoming sick from various illnesses)

D – Deficiency (This means that the body lacks the ability to use the immunity correctly)

S – Syndrome (A collection of diseases and illnesses not related)

7. Explain further that:

AIDS is a condition that results when a person's immune system has been lowered due to HIV infection. Such a person infected with HIV will no longer be able to fight infections such as malaria, tuberculosis, skin infection etc. if left untreated after sometime. The condition when the person now has all kind of infections occurring at the same time to the individual is referred to as AIDS.

C. EXERCISE: Show participants the illustrations how HIV infection weakens body immunity

D Summary

Summarize the session by explaining the meaning of HIV and AIDS and how HIV affects the body

F Evaluation

Ask participants to:

1. Explain the meaning of HIV and AIDS
2. Explain how HIV affects the body

Topic 2: Targeting Adolescents for HIV intervention

Duration: 45 minutes

At the end of the session, participants will be able to:

1 Explain why adolescents should be targeted for HIV and AIDS intervention

2 Consider personal beliefs (perception) about HIV and AIDS

RESOURCE MATERIALS

- Flip sheets
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

1. Ask the participants why adolescents should be targeted in HIV intervention
2. Note their responses
3. Provide clarification as follows:
   - HIV infections among youths have being on the increase within the last few years and this is causing a great concern
   - Young people particularly the females are biologically and socially vulnerable to the epidemic
   - Young people have limited access to youth friendly services, a counseling or family planning

A. EXERCISE : Belief (Perception) about HIV and AIDS

- Explain to the participants that there are many beliefs (perception) about HIV and AIDS, the way the HIV can spread, its causes and how it can affect the body. Tell the participants that they will carry out an exercise to check individual perception about HIV and AIDS.

The aim of this exercise is to help people to consider their perception about HIV. Prepare for the exercise by ticking the statements that reflect negative perception that can lead people contacting HIV (see statements below).Allow 10minutes for the exercise.

- You cannot get HIV from a person who looks healthy
- You have not had sex before
- Have not shared clippers, razors tooth brushes with anybody.
- Do not have HIV or AIDS
- Have not taken blood before
- Do not believe in it (HIV and AIDS)
- No reason

Ask each person to read out one statement above, stating what he/she thinks about HIV.

Invite others people‘s opinions.

After each participant’s reaction, ask other people for their opinion and discuss the conclusion reached.

Note contribution of each participant on the flip chart

End the exercise by stating that each participant should reconsider her/his belief as the training progresses. Everyone will be better informed and will be able to educate others on HIV and AIDS.

B. Summary

Summarize the session by explaining why adolescent should be targeted and their belief about HIV.

C. Evaluation

Ask participants to:

1 Explain why adolescents should be targeted for HIV and AIDS intervention

2 Explain the positive beliefs (perception) about HIV and AIDS

MODULE 3: MODE OF TRANSMISSION

Topic 1: How HIV is spread and how it is not spread.

Duration: 45 minutes

Learning Objectives

At the end of the session participants will be able to

1. Describe 3 ways by which HIV is transmitted
2. Describe 3 ways by which HIV is not transmitted

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

A. INTRODUCTION

1. Introduce the session by carefully guiding the discussion on how HIV is transmitted
2. Ask participants to identify ways by which HIV can be transmitted.
3. Divide the participants into two groups:

4. Group 1:To discuss how HIV is spread
5. Group2: To discuss how HIV is not spread.
6. Note responses on the flip sheet

B. CLARIFY AND EXPLAIN, BASED ON THE RESPONSES PROVIDED AS FOLLOWS:

There are three major modes of transmission of HIV

- Having unprotected sex with an infected person
- Contact with infected blood and blood product
- From an infected mother to her child
- Sharing of sharp objects infected with the virus

HIV is found mainly in 4 body fluids

- Blood
- Vaginal fluid
- Seminal fluid
- Breast milk

Inform the students that HIV can also be found in other body fluids such as saliva and sweat but in much lower concentrations

Further clarify that:

HIV can be spread and transmitted

- Through unprotected sexual intercourse with an infected person
- Through an infected mother to the foetus or during pregnancy, delivery or while breastfeeding
- When a person is transfused with blood infected with the virus
- Through the sharing of infected needles, syringes, razor blades, ear piercing needles, tattoo knives etc.

C. How HIV is not spread

1. Ask participants to think of possible way through which HIV is not spread
2. Commend their responses, by including:

3. Eating with infected persons
4. Touching infected persons
5. From uninfected mother to her unborn child

- Dancing together with an infected person
- Swimming together with an infected person
- Holding hands together with an infected person
- Living with people who are infected with HIV
- Hugging
- Sharing toilet seats together
- Insect bites such as mosquitoes, bedbugs etc
- Reading together
- Through witchcraft
- Coughing
- Sneezing

SUMMARY

Summarize how HIV is transmitted and how it is not transmitted.

EVALUATION

Ask the students to

- State three ways by which HIV can be transmitted
- State three ways by which t HIV cannot be transmitted

Topic 2: Sign and symptom of HIV and AIDS

Duration: 30 minutes

Learning Objectives

At the end of the session participants will

- State three signs and symptoms of HIV and AIDS

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

A. Signs and symptoms of HIV and AIDS

1. Ask one volunteer to mention the sign and symptoms of HIV and another volunteer to mention the signs and symptoms of AIDS
2. Note responses and clarify as follows
3. First explain to them that there is a difference between signs and symptoms. Signs are what you can see, and symptoms are what you can feel.
4. Explain further that one cannot tell by mere looking that some has the HIV. Often people who have the virus have no symptoms and have no idea that they have the virus. But they can still spread the virus to other people through the mentioned modes of transmission. At times it may take up to 10 years after a person has been infected with the HIV before the signs and symptoms develop.

There can be one or more signs and symptoms develop.

- Severe weight loss (loss of 10% body weight)
- Chronic diarrhea lasting for more than one month
- Constant cough
- Thrush in the throat and mouth
- Tired all the time
- Easy bruising or unexplained bleeding
- Night sweat
- Changes in hearing, vision, taste, touch, smell
- Memory loss or difficulty in thinking clearly
- Recurring herpes simplex (cold sores) and/ or herpes zoster sores.
- Others are severe pneumonia, tuberculosis, some forms of cancer and chronic skin ulcers.

B. SUMMARY

Summarize the signs and symptoms of HIV and AIDS.

C. EVALUATION

Ask the students to

State three signs and symptoms of HIV and AIDS

MODULE 4: HIV METHODS OF PREVENTION

Topic: METHODS OF PREVENTING HIV and AIDS.

Duration: 45 minutes

Learning Objectives

At the end of the session participants will;

1. Describe 3 ways by which HIV infection can be prevented
2. Describe 3 ways by which HIV infection cannot be prevented.

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

A. INTRODUCTION

1 Introduce the session by carefully guiding the discussion on how HIV can be prevented

2 Ask participants to identify ways by which HIV cannot be prevented

3 Divide the participants into two groups:

4 Group 1:To discuss how HIV infection can be prevented

5 Group2: To discuss how HIV infection cannot be prevented.

6 Note responses on the flip sheet

B. CLARIFY AND EXPLAIN, BASED ON THE RESPONSES PROVIDED AS FOLLOWS:

1. Explain to participants that presently AIDS has no cure. Preventing the transmission is the key to controlling the spread.
2. Request participants to brainstorm how HIV infection can be prevented
3. Note responses on the chart.
4. Expand on the points as follows.

– **Abstinence:** not having sexual intercourse is the only 100% safe option for not contracting HIV through a sexual contact

- Avoid pre-marital sex.

Avoid contact with blood and blood products of infected persons:

- Don't accept unscreened blood for transfusion
- Don't share skin piercing objects, needles, clippers, razor blades, tooth brushes
- Wear gloves or other protective instrument when attending to an injured persons or giving first aid.
- Initiate post exposure prophylaxis (PEP) after accidental exposure (e.g. needle stick).

THE TWO IN ITALICS NOT TO BE TAUGHT AT JSS 2.

***– *Be faithful:** to one faithful uninfected sexual partner*

***– *Correct and consistent use of condoms** during sexual intercourse*

WAYS BY WHICH HIV CANNOT BY PREVENTED.

* Avoid touching persons who has AIDS
* By staying away from person living with HIV and AIDS
* Avoid eating with infected persons.

Further clarify and emphasize that HIV cannot be prevented through the above means. E.g. no exchange of body fluid.

C Summarize

Summarize the way by which HIV can be prevented and how it cannot be prevented.

D Evaluation

Ask the participants the following questions:

1. State three ways by which HIV can be prevented
2. State 3 ways by which HIV cannot be prevented.

Topic 2: Misconceptions and stigmas of HIV/AIDS

Duration: 45 minutes

Misconceptions and stigmas of HIV/AIDS

Learning Objectives

At the end of this session, participants will;

Explain two corrected misconceptions

Explain two corrected attitudes

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/CONTENT

A INTRODUCTION

1. Guide discussion on rumours and myths about HIV/AIDS that exist throughout the world
2. Explain that misconceptions are extremely dangerous because those who believe them remain uneducated about actual HIV prevention methods.
3. Some common myths about HIV from around the globe are

- HIV/AIDS only occurs in gay men, sex workers and injection – drug users
- HIV can be transmitted through day-to-day contact with an infected person (such as sharing a glass or food, hugging, coughing, etc)
- Mosquitoes can spread HIV''

- Women with HIV can't have children''
- A person cannot get HIV from having sex just one time''
- Showering and douching after sex prevents HIV''
- HIV and AIDS is the same thing''
- There is a cure for HIV/AIDS''
- A person can get AIDS from a toilet seat''
- All people who get HIV will get AIDS''
- HIV/AIDS is a punishment from God''
- Having sex with a virgin can cure HIV/AIDS in a person.''(Common in parts of Africa and has resulted in the rapes of many young girls.)

ATTITUDES

- ✓ People who have AIDS should be forced to live away from other people
- ✓ I will be happy to be in the same classroom with somebody who has AIDS
- ✓ I will be happy to shake hands with a friend who has AIDS
- ✓ I will feel safe if am staying close with classmate with HIV/AIDS
- ✓ A teacher living with HIV should continue to teach if he is not sick
- ✓ People with AIDS are receiving the reward of their sins
- ✓ Students with HIV and AIDS should be isolated

NB .Further clarify the above identified poor attitudes. Assess the impact of their attitudes, feelings and values on HIV and AIDS education and prevention. Bearing in mind that one's knowledge, beliefs and values influence his attitudes and behaviour.

B Effects of HIV and AIDS

1. Guide discussion on the effect of HIV/AIDS on individual, family and community
2. Note contributions and discuss as follows

a. Effect of HIV & AIDS on the Individual

Loss of source of livelihood as a result of illness

Poor and deteriorating health

Emotional distress / depression

Loss of friends

Loss of self esteem

Self hatred, which may lead to suicide

Poverty due to illness, frequent hospital admission and loss of job

Stigmatization

b. **Effect of HIV/AIDS on the family**

Shame

Emotional distress

Hostility to the family of the HIV positive person

Money spent on hospital bills

Time is spent on caring for the individual

Anxiety since the HIV infected person may die prematurely misconceptions

C. Summary

Summarize cleared misconception and stigma about HIV and AIDS prevention.

D. Evaluation

Ask student to

1. Explain two corrected misconceptions
2. Explain two corrected attitudes

MODULE 5: RISK AND RISK REDUCTION PRACTICES

TOPIC 1: Risk and risk reduction practices

Duration: 1 hour

Learning Objectives

At the end of the session participants will;

1. Describe 3 Risk practices
2. Demonstrate how one of these practices can lead to contracting HIV.
3. Describe 3 risk reduction practices
4. Demonstrate two risk reduction practices.

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

A. Introduction

Start the session by stating that many people go about their daily business and their relationships without once thinking, that they may be at risk of contracting HIV, whereas increasing number of people especially adolescents and youths are involved in risky behaviours. It is therefore pertinent to discuss extensively on these risk practices and the ways to reduce or extinguish the practices.

B. Exercise 15minutes

- Ask each participants to demonstrate a risk taking behaviour and another a risk reduction behaviour
- Recall the participants to discuss the exercise.

RISK PRACTICES:

* Playing with sharp objects (broken bottles, knives etc)
* Sharing tooth brushes
* Sharing clippers, razors, scissors etc
* Providing first aid treatment to injured students without gloves
* Having sex while in school (or outside the school)
* Fighting and biting other students
* Transfusion of blood in the house

Risk Reduction practices:

- ✓ Do not have sex while in school or outside the school
- ✓ don't treat injured person without gloves
- ✓ avoid blood transfusion in the homes
- ✓ no sharing of razor, clippers, tooth brushes etc
- ✓ Do not fight and bite other students.

C. Risk Thinking Game 30minutes

➢ Explain to participants that the next session is to get them thinking about risk. That life is risky business for everyone but some risks are more than others. Many people are reluctant to accept that HIV is real and personal risk in their own life.

➢ Explain further that this next discussion and activity is aimed at helping participants to explore different kinds of risk in their everyday lives.

Activity 1 (Risk and Result)

- ➢ Invite participants to think about the following on their own for few minutes
- ➢ Think back of your own life and identify any occasion you took a risk like having sex while in school, playing with sharp objects etc. It may have been a small risk or huge one that was very important to you at that time.
- ➢ Ask participants (It may be helpful to write on the chart;
  - **a.** What makes you to take the risk
  - **b.** What was the result of taking that risk

c. Do you generally take risks

d. How do you view risk taking in others

e. How does risk taking among your friends affect you

f. How does this affect your attitude towards the risk of HIV

- After a few minutes, ask everyone to choose a partner and share as much of their situations as they wish. Each person should talk for a few minutes and then listen to their partner's story.
- Invite everyone to sit in a full circle. Encourage them to explore links between how people deal with risk and ways in which this may affect their responses to HIV/ AIDS.
- Guide the discussion.
- Conclude the exercise by stating that it is very important that everyone should accept the reality of risk and the need to avoid risky behaviour that could expose us to being infected with the HIV.

D. People at risk of HIV

- Ask participants to brainstorm the different groups of people at risk of HIV
- Note the responses on the flip chart
- Explain that everyone is at risk of getting HIV, rich or poor, young or old, literate or non literate. However, the following groups are more at risk;

Adolescents and young people

People sharing razor, blades, toothbrush, circumcision knives, ear piercing needle and those involved with invitation into cultism

People sharing needles and syringes

People with multiple sex partners

Long distant truck drivers who have multiple sexual partners

E. Summary

Summarize the risk and risk reduction practices.

F. Evaluation

Ask participants to

1. Describe 3 Risk practices
2. Demonstrate how one of these practices can lead to contracting HIV.
3. Describe 3 risk reduction practices

Topic 2: Knowing Who Is Infected

Duration: 45 minutes

Learning objective

1. Explain advantages of HIV testing
2. Explain reasons for HIV testing

RESOURCE MATERIALS

- Flip sheet
- Flip sheet stand
- Permanent markers
- Masking tape

METHOD/ CONTENT

A. Introduction

(HIV Voluntary counselling and testing)

- Guide the discussion on how to know if one has HIV
- Note responses
- Contribute by explaining that it is not possible to know by just looking at oneself or another person if one has HIV
- Explain that the only way to know is by going for an HIV test.
- Explain that test is safe and painless. One can get the result in few hours or so, depending on the type of test.

To know whether one is truly free from HIV, a repeat test is done in 3 or 6 months time when a window period will be over.

B. Reason to Get Tested

- Explain the following reasons as follows:

a. To know your HIV status. This will make one to change the way of life to preserve one's health and ensure a longer or better lives.

b. To put your mind at rest

c. For employment purposes

d. For marriage purposes

e. To get treated if you have it

f. Donate blood etc

- Explain that it is important one is counselled before and after the test
- Explain that presently there is no cure for HIV but there are medicines which can be given to people with HIV to delay the onset of AIDS related illness or reduce the chances of infection. Stress that the best way is to prevent getting the virus.

C. Benefits of Voluntary Confidentiality Counselling and Testing (VCCT)

- Ask participants to brainstorm the advantages of VCCT
- Note points which may include the following:

a. It helps to prevent and control the spread of HIV/AIDS

b. It enables one to know if one has the virus or not and this will help to make one feel comfortable

c. Knowing the result will help one to make changes to one's way of life that will preserve health.

D. What one needs to know about HIV Test.

- Explain to participants that it is strongly recommended that one is counselled both before and after the test. This will help one to think through responses to the test result
- For instance, if the test is positive;

a. How to cope with the news

b. Who to tell

c. Who not to tell

E. Summary

- Summarize the key points

F. Review/Evaluation

Ask the participant to

1. Explain 4 advantages of HIV testing.
2. Explain 4 reasons for HIV testing

MODULE 6: LIFE BUILDING SKILLS

Topic: Life building skills

Duration: 45 minutes

Learning objectives

At the end of the session, participants will be able to:

1. Define life building skills
2. State 4 importance of acquiring life building skills

Resource materials

- Flip sheets
- Flip chart stand
- Markers
- Masking tape

A. Introduction

Introduce the topic by stating that, as discussed previously, adolescents are faced with a number of sexual challenges, and that it is very important that adolescents have the skills to overcome these challenges.

B. Definition of life building skills

1. Request participants to attempt to define life building skills.
2. Jot all responses on the board.
3. Clarify as follows:

Life building skills are special competencies an individual will acquire over a period of time to enable him/her deal with specific life situations for the purpose of life survival, self development and management of situations.

C. Importance of acquiring life building skills

1. Guide participants to discuss the purpose of life building skills.
2. Note contributions, which may include:

- To assist young people to highlight the options in life building to enable them make unbiased and informed choices about their lives.
- To promote health behaviours and attitudes.
- To assist youths deal with conflict situations
- To encourage youths to adopt and develop positive lifestyles
- To assist youths to go for self appraisal
- To ensure that young people have quality of life and enhance standard of living
- To help build young people's self confidence and self recognition.

Summary

Summarize by defining life building skills and the importance

Evaluation

Ask the participants to

1. Define life building skills
2. State 4 importance of acquiring life building skills

Topic 2: Components of life building skills

Duration: 30 minutes

Learning objectives

At the end of the session, participants will be able to:

1. State 4 components of life building skills

Resource materials

- Flip sheets
- Flip chart stand
- Markers
- Masking tape

A) **Components of life building skill**

- Goal setting: Having in mind of attaining your educational goal before going into sexual relationships.
- Value clarification: Seeing yourself more precious to your parents and your community than to be sexually dented by anyone
- Assertiveness: Saying no and standing by it without hurting whoever that approached you for sex.
- Self efficacy: Can confidently have sex at this age
- Refusal skill :Refusing to have sex until you are married
- Negotiation: Resisting not to have or have unprotected sex

B. Summary

Summarize the components of life building skill.

C. Evaluation

Ask the participants to

1. State 4 components of life building skills

Topic 3: Discussion on components of life building skills

Duration: 1 hour

Learning objectives

At the end of the session, participants will:

1. Discuss components of life building skills

Resource materials

√ Flip sheets

√ Flip chart stand

√ Markers

√ Masking tape

A. Components of life building skills

1. Request participants to brainstorm some of the life building skills required by adolescents.
2. Note responses.
3. Clarify and expand on information as per content.

- Goal setting
- Value clarification
- Assertiveness

GOAL SETTING

1 `Guiding discussion on goal setting.

2 Note contributing and clarify as necessary.

Goal setting: is an activity that enables us to plan what we intend to achieve in life.

- Explain further that the goals that are set depend largely on one's value (i.e. what we consider to be important)
- Tell participants that there are 2 types of goal.

(I) Short-term goals: These are goals to be achieved in short period such as within days, weeks and a few months.

(II) Long-term goal: are to be achieved over a long period (several months, years or over a life time) for example to become a medical doctor.

Highlight the steps required in setting and achieving good goal as follows

a. Clarify your underlying motivation

b. Identify your options (consider possible alternatives)

c. Make a choice
d. Set a reasonable time limit
e. Work consistently towards achieving your set goal
f. Check progress routinely
g. Finish.

Values and value clarification

At the end of this session participants will be able to:

1. Define values and values clarification
2. Vote for their values in relation to HIV/AIDS issues and be able to clarify them.
3. Assess the impact of their attitudes, feelings and values on HIV/AIDS education and prevention.

A. Introduction

- Greet the participants and explain to them that in the next one hour, they will be carrying out an exercise known as the values voting exercise. The purpose of the exercise will become clearer as they participate.
- Encourage them to be honest and truthful when they vote for values.

B. Definition of values/values clarification

- Ask participants to brainstorm what they understand by values.
- Jot all responses on the board.
- Clarify all points raised and define as fellows.

Values: are ideas, beliefs and qualities that are important, desirable and highly prized. We are the outcome of our values as people act according to what they value.

Values clarification: can be defined as sorting out your values from the values of others and acting on them.

C. Summary

Reiterate that as it has been demonstrated, values differ amongst people and even among members of the same family. Hence it is important that we respect the values of young people that corps members will mentor. It is important to have the appropriate knowledge, attitude and skills on values development and utilization needed for young people.

D. Evaluation

1. What are values?
2. Define values clarification
3. Why are the important?
4. Why did we explore our values during this exercise?

Assertive communication

Objectives

At the end of this session participants will:

1. Describe
   a. Assertiveness
   b. Non assertiveness
   c. Aggressiveness
2. State 3 reasons for being assertive
3. State 3 behaviours that can enhance assertive behaviour

A. Introduction

Introduce the session by explaining that communication is the way we express our feelings, thought and ideas. People often think that communications just happens, but to communicate effectively there are skills one needs to learn.

B. Definition of (A) Assertiveness

(b) Non- assertiveness

(c) Aggressiveness

- Ask participants to brainstorm the meaning of each word and to explain the of each
- Write responses on flip chart
- Explain as follows:

Assertiveness means standing up for your right without violating anyone else's.

- Explain that assertive behaviour makes you feel better about yourself, confident, in control and respected by others

- **The outcome of being assertive is that:**

You do not hurt others

You gain respect for yourself

Your rights and those of others are respected; and

Everyone feels good

Aggressiveness means you stand up for your right at the expense of someone else's.

- Explain that aggressive behaviours make you feel angry, frustrated, bitter, guilty or lonely.

- **The outcome is that:**

You dominate

You humiliate and

You win the expense of others.

Non-aggressive behaviour means giving up your basic rights so that others can achieve theirs.

- Explain that non-aggressive makes you feel helpless, resentful, disappointed and anxious

- **The outcome is that:**

You do not get what you want

Anger builds up in you

You feel lonely and

Your rights are violated.

C. Examples of each type of behaviour

- Ask 4 participants to volunteer to give examples of each behaviour
- List responses on the flip chart

- Ask participants the following:

a. Describe the situation for each behaviour stated

b. How did you feel afterward?

- Explain that sometimes each type of behaviour may be misunderstood but it is often effected as it shows self respect

D. Exercise on response options

- Tell participants that they will carry out an exercise on our response options
- Distribute a copy of the response options continuum to each participant
- Write the following life situation on the flip chart
- Ask each participant to choose the response option they think is most suitable in the situation described. Use abbreviation e.g.

Non-aggressive use **N/A**

Aggressive use **AG**

Assertive use **A**

Situation 1:

You and friend have been asked to select the colour to paint your house.

Response options:

a. You choose, you always know what is best

b. I like the blue, which colour do you prefer

c. Pink is a terrible colour. I say blue. So blue it is going to be.

Situation 2:

Your friend did not turn up for an appointment

Response options:

a. Say nothing at all or “it did not really matter”.

b. I was mad when you did not show up last night! What happened?

c. You are such a fool; I hope I never lay eyes on you again!

Situation 3:

A friend has asked to copy your homework assignment

Response option:

a. I do not know, I spent so much time doing it.
b. I get really frustrated when you ask to copy my work because I know I put hours into it while you were out messing around. No I really do not want you to just copy it.
c. You were out messing around having a great time while I am home studying and then you expect me to just hand over to you! Who are you kidding? You can drop dead for all I care!

Topic 4: Components of life building skills (cont'd)

Duration: 1 hour

Learning objectives

At the end of the session, participants will:

2. Discuss two components of life building skills(Refusal skills and Negotiation skills)S

Resource materials

- Flip sheets
- Flip chart stand
- Markers
- Masking tape

Refusal skills

Objectives:

At the end of the session, participant will be able to:

1. Define refusal skill
2. Differentiate between negotiation and refusal skill
3. Demonstrate how young people can refuse undue pressure and say "NO".

A. Introduction

Introduce the topic by stating that it is important for young people to have refusal skill. This is because most times, young people would like to say no to some peer pressure but they do not know how to go about it. The importance of assisting to develop an appropriate refusal skill cannot be overemphasized.

B. Definition of Refusal Skill

- Ask participants to define refusal skill
- Note responses and define refusal skills thus:-

Refusal skills can be defined as the ability or special competency to say or show that one is unwilling to give, accept or do what another person is requesting him or her to do by sying no, making it clear to the person putting on the pressure.

C. Situation where refusal skill is applied

- Request participants to give examples of situations where they could use refusal skills.
- Jot responses on the board, clarify, and explain as follows:

a. Offering drinks to a non- drinker
b. Offering cigarette to a non-smoker
c. Offering diet pills to an overweight person
d. To have sexual intercourse
e. Stealing
f. Introducing one to sex work for commercial purposes.

D. Difference between Negotiation and Refusal skills

- Explain to participants that in negotiation skills, one will advance some reasons why a person wants maintain a particular position or decision. There is an element of compromise in negotiation.
- In refusal skills, one does not compromise his or her decision. Maintaining the position of non-compromise can be achieved by not advancing reason for advancing a position or decision. This is so that one does not get convinced by the counter arguments the other person present.

E. Demonstration of Refusal Skills

Role play

- Divide the participants into groups to give the following scenario
- Ask participants to nominate two people to role play refusal skill

a. Group 1: A girl being pressured into having sex. Advice the girl on how she will employ refusal skills

b. Group 2: A boy being pressured to join a cult

c. Group 3: A boy being pressured into armed robbery

d. Group 4: A boy being pressured into smoking marijuana

- Give 10 minutes for practice, then ask each group to present
- Ask other participants to give a critique to each presentation.
- At the end of the presentation provide the following general guideline on saying no.

F. Summary

Summarize key points

G. Evaluation

- Define refusal skill
- Differentiate between negotiation and refusal skill
- Mention steps in saying no

NEGOTIATION SKILL

Duration: 60 minutes

Objectives:

At the end of the session, participants will be able to:

1. Define negotiation
2. Explain 2 reasons why negotiation is important
3. Mention 3 skills necessary for effective negotiation
4. Demonstrate the skills needed to negotiate effectively
5. State 3 tips for effective negotiation

A. Introduction

Introduce the session by explaining that negotiation is very important in our various interaction with people, e.g., we negotiate with our parents about what we want to buy, eat, or do. When we have conflicting ideas or our practices with our peer, the ability to stand up for our values and beliefs is very important friends and colleagues may come with unacceptable or dangerous suggestions and put pressure on us to accept them. This is where our negotiation skills are useful. It is very important that as young people we know how to negotiate appropriately in order to avoid running into problems.

B. Definition

- Ask the participants to brainstorm the definition of ‘negotiation’.
- Note all their responses on the flip chart
- clarify points raised by participants, and then define as follows:

“**Negotiation involves an amicable agreement reached by two or more individuals to solve a problem. It is a way of meeting one’s goals without anger, guilt or intimidation. It involves discussion, listening and observation’.**

C. Importance of negotiations

- ask participants why they think learning how to negotiate is important
- write all the responses on the board and expand as follows:

a. To enable us get our needs met without feeling guilty, angry or intimidated.
b. When negotiation is used effectively it enhances relationships.

D. Skills required for negotiation

- Ask participants to brainstorm the skills they think are necessary to negotiate effectively.
- Note responses
- Expand on points and explain each points

Effective communication skills: speak using clear and simple words and so that it is easy for the other person to understand your intention. Using positive body language (such as smiling and looking at the other person while speaking to them) can help you communicate your intention even more effectively.

Listening skills: listen carefully to what the other person is saying. Use positive body language (such as nodding) to show that you understand what they have said. Ask questions if you do not understand or need clarification.

Observation skills: carefully observe the other person’s non-verbal cues while you are both speaking. These non-verbal cues can include positive body languages to show that they understand what you are saying or negative cues such as looking around at other things which could show that they are not listening.

Critical thinking skills: having listened to and observed the other person's intentions, carefully weigh up the implications of their suggestions.

Body language skills: use of positive body language to help you communicate your intention.

Problem solving skills: ability to quickly think out the solution to a problem.

Peer resistance skills: ability to say "NO" to your peer when you do not agree with their suggestions.

E. Demonstrate the skills required in negotiation

Roles play (10 minutes)

- Divide participants into 2 groups
- Provide the groups with scenarios on negotiate issues, e.g.

Group 1 A girl being pressurized to have sex

Group 2 A boy being forced to join a cult.

- Ask each group to perform a role play of the scenario within their group. The other members of the groups should comment after the role play.
- Comments should be recorded and then presented to the whole group.
- After the presentations, guide a discussion on the various scenarios.
- Note contributions.

F. Tips on effective negotiation

Provide tips on how negotiation could be improved upon:

- Always use "I" statements. Say what you want to say as clearly as possible. Do not expect the other person to read your mind. The other person cannot give you what you what you want unless you explain what it is. You can deal with many potential conflicts by developing the ability to say "I need" or "I would like".
- Explain to the person what it is about their behaviour that has displeased you. Do not criticize or put the person down.
- Be a good listener. If you do not understand what the other person is saying, ask for an explanation. Show respect to the other person even when you are being assertive.

F. Steps in Negotiation

Explain the steps involved in Negotiation as follows:

- Talk about the issue and clarify your position
- Say no with words like I do not want to have sex, or I do not want to join such group, or I do not want to smoke.
- Say no with your body e.g. make eye contact signaling no.
- Stand back from the person who is pressurizing especially if they are asserting sexual pressure.
- Keep repeating no without giving any excuses or reasons.
- Turn the conversation around and let him or her know how you feel about being pressured into doing something not in your best interest.
- Leave the situation, refuse to discuss the matter anymore and walk away if necessary.

G. Summary:

Remind participants that good negotiation skills are import as problems and situations of conflict will always present themselves. To any problem there may be more than one solution but the important thing is that the solution is agreed on between the parties concerned and is mutually beneficial.

H. Review/evaluation:

Ask participants to:

1. Define negotiation
2. Explain 2 reasons why negotiation is important
3. Mention 3 skills necessary for effective negotiations
4. State 3 tips on effective negotiation

NOTE: This curriculum is adapted from training curriculum for adolescents Peer Educators: Developed for ARFH-APIN HIV Prevention Project (AB Component), Federal Ministry Of Education FLHE Programmed and Curriculum For Training Of Trainers For Peer Education; NYSC Reproductive Health & HIV/AIDS Prevention Project.

APPENDIX VI

TRAINING EVALUATION FORM A & B

Answer all questions below objectively and truthfully. Your response will help in improving future training. Do not write your name. Thank You.

1. Which topic did you understand most? ……
2. Which topic did you understand least?……
3. Which module/Episode do you like most and why?...……
4. Which module/Episode do you like least and why?……
5. Was the time adequate for session?…….....
6. If the time was not adequate: ...…….....
7. Which session need more time?…….....
8. In your own opinion, what are the benefits of this training?.....……
9. What do you suggest should be included to improve the training?……
10. Any other comments.....

NB: Classroom Interaction and Drama.

APPENDIX VII

EVALUATION FORM PRINCIPALS/VICE-PRINCIPALS (POST-INTERACTION)

Instruction:

Please answer the following questions as regard the recent students HIV/AIDS knowledge and risk reduction programme conducted in your school.

Date:…… Name of school:……

1. What is your position in the school?

(a) Vice-principal ☐

(b) Principal ☐

2. What impact have you noticed the project has made in your school generally?

……

3. What are the strengths of this programme in your school?

……

4. What are the weaknesses?

……

5. Suggest ways of improving the implementation of a seminar on this programme in your school in the future? ……

6. Will you recommend that a seminar on this programme be implemented in other school in future?

Yes ☐ No ☐

7. Give reasons for your answer to question Number 6.

APPENDIX VIII

Monitoring Indicators

Date	Class attendance of pupils monitored	Lesson taught/topic covered	Length of time	No of time monitored

Observational checklist tracking the performance of teachers/students summary

Checklist	Poor	Fair	Good	Very Good	Excellent
Attendance and punctuality of teachers					
Teachers' use of manuals, posters, magnetic board and other interactive					
Teachers' ability to involve pupils and make the lesson interesting and interactive (e.g. asking them questions, taking their comments, observations and questions, checking their personal and environmental cleanliness during lesson on hygiene)					

Use of lesson enhancement procedures (film, projector, demonstration, poem, songs, generator)					
Teachers' understanding and control of the lesson/key words					
Pupils' participation through questions, comments and involvement in practical demonstration and activities					
Giving of assignments related to lessons					
General mood/atmosphere in the class					
Teachers achievement of lesson plan and content in allotted time					

APPENDIX IX

Department of Nursing,
Imo State University,
Owerri.

2/11/2011
The Hon. Commissioner,
Ministry of Education,
Owerri, Imo State.

Dear Madam,

APPLICATION FOR PERMISSION TO CARRY OUT A RESEARCH STUDY IN MIXED-SEX PUBLIC SECONDARY SCHOOLS IN IDEATO SOUTH, NJABA,AND ORU WEST LGAs, IN ORLU SENATORIAL ZONE, IMO STATE.

Your permission is kindly requested to carry out a study in mixed-sex public secondary schools in the above named local government areas of Imo State. The adolescents in the schools are the target population. The aim of the study is to design and implement two sets of educational intervention (classroom instruction vs. drama) to address HIV/AIDS knowledge, attitudes and risk behaviour among the adolescents. It is hoped that the outcome of the study will assist adolescents to have better understanding of how their body work and the consequences of their sexual risk behaviours. This may reduced the risk of contracting and spreading HIV/AIDS/STIs. The researcher is a PhD student in the Department of Health Promotion, Faculty of Public Health, University of Ibadan. I am a lecturer at Imo State University Department of Nursing Science, Owerri. The study will be conducted within a period of 3 months. Students have the right either to participate or not participate, though the experience is rewarding. Confidentiality with all responses from the students will be ensured.

Thank you for your anticipated favourable consideration.

Yours faithfully,

Ezeama Martina C.

APPENDIX X

GOVERNMENT OF IMO STATE OF NIGERIA
OFFICE OF THE HONOURABLE COMMISSIONER
MINISTRY OF EDUCATION

Our Ref: MOE/STHE/250/T.11/68 Your Ref: _____ Date: 9th November, 2011

The Principal

Permission To Conduct Research/Study
In Mixed-Sex Public Secondary Schools
Re: Ideato South, Oru West and Njaba
L.G.A's in Orlu Senatorial Zone.

I am directed to refer to a letter by Mrs. Ezeama Martina C. dated 2nd November, 2011, on the above subject matter and convey the Ministry's approval for her to carry out research work in the Public Secondary Schools using the target population of Students in Junior Secondary Class 2. Please oblige her access to the Schools and the target population.

Mrs. Ezeama Martina C. is a Ph.D Student of the University of Ibadan, carrying out research work in Public Health.

The data to be generated by her work is purely for academic purposes.

Please accept the assurances of the Honourable Commissitioner's esteemed regard.

Okonkwo, B.N
For Hon. Commissioner.

Block 3, Imo State Secretariat Complex, P. M. B. 1309 Owerri, Phone 083-230149, 230020