



Awareness Level of HIV/AIDS among Junior Secondary School Students in South-West Nigeria

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ABSTRACT

Human Immuno-deficiency Virus/Acquired Immune Deficiency epidemic in recent time have been spreading like bush fire in almost every corner of the globe including Nigeria. The study investigated the awareness level of HIV/AIDS among junior secondary school students in south-west Nigeria. Frequency, mean, and simple percentages were used for the analysis of the responses. Unrelated t-test of statistical analysis at a significant level ($p < 0.05$) was used to test the acceptance or rejection of the study hypotheses. The study showed that majority (62%) of the respondents was female, while 38% were male. The results showed that majority (48%) of the respondents is within the age of 11⁺ – 12 yrs of age, followed by age group of 10⁺ – 11 yrs with 37%, while 11%, 2% and 2% are in age group of 09⁺ – 10, 08 – 09, and 12⁺. The finding of the study revealed that the information that could be adequate on the awareness of HIV/AIDS existence among JSS students in South west Nigeria was not received in schools. The study revealed that the level of awareness of HIV/AIDS transmission any youths was low, as most of the respondent did not agree with the statement categorically giving awareness of the transmission of HIV AIDs. The finding revealed that majority of the respondents was aware of preventable measures of HIV/AIDS. The study emphasized the need for programmes on risk-taking in casual and unprotected sex among JSS students in order to have positive change towards unprotected and casual sex.

Keywords: HIV/AIDS epidemic, awareness, transmission, preventable measures, positive change.

INTRODUCTION

Human Immuno-deficiency Virus/Acquired Immune Deficiency (HIV/AIDS), epidemic in recent time, have been spreading like bush fire in almost every corner of the globe, Nigeria inclusive. AIDS is the end stage of infection with HIV, characterized by a cluster of illness and death in some cases (WHO, 1994). The disease strikes mainly the most active and productive sectors of the African society, the youths and leaders of tomorrow. Nigeria adolescents, apart from becoming more sexually active like their counterparts in other parts of the world; they initiate sexual activities quite early and remain sexually active for most of their adolescent years. Youths of every nation of the world constitute the future generation, if the syndrome is allowed to continue spreading at the current rate, there is the danger that quite a number of the youths will not reach adulthood and this will have serious impact on the socio-economic development of the family and the society in general (Okanlawon & Adeyemo, 2004).

In addition to the suffering and mortality of those afflicted with the disease concerns include the consequences of adult AIDS related deaths for young children who become orphans and for grandparents and other kin who bear the burdens of caring for both the dying and their dependents (Apata, 2003). The innate for survival make young people tend to involve into a lot of income generating activities including casual sex to meet up with this forced of responsibility on them. Reports have shown that AIDS is a behavioural disease and its prevalence in the Nigerian youths is associated with risk-taking behaviour such as indiscriminate and unprotected sexual intercourse (Okanlawon, 2001, Oppong & Agyei-Mensah (2004)).

With all these in mind, the most realistic way of reducing the spread of HIV/AIDS among youths is by implementing prevention education programmes that will effect a change in their risk-taking behaviour and assist them to take preventive measures against the syndrome. The situation has reached a stage where every possible approach needs to be put forward to stop the spread of the infection. Ogundele (2004), Apata (2007) stated that proper education of students about HIV/AIDS and the preventive measures are among the important strategies in making junior secondary schools in Nigeria HIV/AIDS free environments. It is against this background that this study was carried out to find out the level of awareness of HIV/AIDS and pattern of sexual behaviour among students of junior secondary schools in South-west Nigeria.

Objectives of the study

The main objective of the study was to determine the awareness of level of HIV/AIDS among students of junior secondary schools in South-west Nigeria? Specifically, the following objectives guided the conduct of the study. They are to

- i. Determine the junior secondary students opinion on awareness of existence of HIV/AIDS;
- ii. Determine the junior secondary students opinion on awareness of transmission and prevention of HIV/AIDS;
- iii. Determine whether the students perceived any risk-taking in their sexual behaviours proximity;
- iv. Find out if there is any correlation among the rural and urban students of junior secondary schools in South-west Nigeria in terms of their HIV/AIDS awareness, transmission and prevention.

Research questions

Based on the objectives set for the study, the following research questions were raised:

- i. What is the level of awareness of the existence of HIV/AIDS among students of junior secondary schools in South-west Nigeria?
- ii. What is the level of awareness of the transmission and prevention of HIV/AIDS among students of junior secondary schools in South-west Nigeria?
- iii. What is the perception of students of junior secondary schools on risk-taking in casual and unprotected sex?
- iv. Is there any correlation between rural and urban students of junior secondary schools in South-west Nigeria in terms of awareness of the existence, transmission, and prevention of HIV/AIDS?

Research hypotheses

The following hypotheses are generated for this study:

- i. $H_0 = \phi$: There is no significant difference ($p < 0.05$) in the level of awareness of the existence of HIV/AIDS among students of junior secondary schools in South-west Nigeria?
- ii. $H_0 = \phi$: There is no significant difference ($p < 0.05$) in the level of awareness of the transmission and prevention of HIV/AIDS among students of junior secondary schools in South-west Nigeria?
- iii. $H_0 = \phi$: There is no correlation between rural and urban students of junior secondary schools in South-west Nigeria in terms of awareness of the existence, transmission, and prevention of HIV/AIDS.

METHODOLOGY

Research design: The study modified an already existing structured questionnaire on HIV/AIDS infection created by The Cup Project (2001) to elicit information from the selected junior secondary school students in each of the five secondary schools randomly selected from each of the four states selected for the study.

Population and sample techniques: Sixty students comprises thirty-five female and twenty-five male from each of the twenty junior secondary school were randomly drawn for the study, and this gave a total of one thousand and two hundred students (i.e. 60 x 5 per state x 4 state) for the study. The selections of the students were based on their willingness to be subjects of the study.

Instrument for data collection: The structured questionnaire was review based on literature and objectives of the study. The questionnaire was made up of section A and B. Section A solicits for respondents' bio-data (background information), while section B contained questions on the existence,

transmission, and prevention of HIV/AIDS. The questionnaire employed a yes, don't know, and no responses. Also, simple and concise questions were asked the respondents and were required to tick the responses that correspond to their experiences.

Validation and reliability: The behavioural constructs covered by the measurement match those specified in the stated objectives, and the reliability of the instrument was established by using the test-retest method.

Procedure for data collection: One thousand two hundred copies of the questionnaire were randomly distributed to the selected students of the junior secondary schools for the study. A total of one thousand one hundred and seventy six were retrieved. This gave a 98.2% return rate.

Data analysis

Frequency, mean, and simple percentages were used for the analysis of the responses. Unrelated t-test of statistical analysis at a significant level ($p < 0.05$) was used to test the acceptance or rejection of the study hypotheses. The t-test for analysis of the data was appropriate since the same questionnaire was used for all the groups of the study.

Results

The analysis and interpretation of the data were presented in tables 1 – 7 based on the questions tested under each table.

Table 1: Demographic profile of the respondents

Characteristics	Group	Frequency	Percentage
Sex	Female	724	62
	Male	452	38
Age (yrs)	08 – 09	029	2
	09 ⁺ – 10	125	11
	10 ⁺ – 11	440	37
	11 ⁺ – 12	563	48
	12 ⁺	019	2
Current class	JSS I	492	42
	JSS II	315	27
	JSS III	369	31
Religion	Christianity	591	50
	Muslim	480	41
	Traditional worshiper	105	9
Offspring/child	Yes	018	2
	No	1168	98

Source: Field Survey, 2015

Table 1 showed that majority (62%) of the respondents were female, while 38% were male. The results showed that majority (48%) of the respondents is within the age of 11⁺ – 12 yrs of age, followed by age group of 10⁺ – 11 yrs with 37%, while 11%, 2% and 2% are in age group of 09⁺ – 10, 08 – 09, and 12⁺, respectively. The result shows that majority of the respondents were still in their youthful and learning age. 42% of the respondents were in JSS I, 31% and 27% were in JSS III and JSS II, respectively. The results showed that 50% of the respondents were Christian, 41% were Muslim, while 9% practice traditional religion. 2% of the respondents were mother (had child), while 98% of the respondents still maintain their status quo (had no child).

Table 2 showed that 95% of the respondents agreed with the assertion that they did not have access to television in their school, while 5% had access to television in their school. Majority (98%) of the respondents have no access to radio at school, while 2% of the respondents had access to radio at school. 90% and 96% of the respondents had access to television and radio at home, while only 10% and 4% did not had access to television and radio at home, respectively. Majority (99%) of the respondents during the past three months have heard, seen, or read anything either on radio, television, and newspaper about family planning/child spacing, while only 1% had contrary opinion. Also, 99% of the respondents have heard of an illness called AIDS, while 1% of the respondents have not.

Table 2: Level of awareness of HIV/AIDS existence among junior secondary school students in south-west Nigeria

Responses		Yes	%	Don't No	%	No	%
i.	Do you have access to a television that function in the school?	064	5	--	--	1112	95
ii.	Do you have access to a radio that function in the school?	025	2	--	--	1151	98
iii.	Do you have access to a television that function at home?	1057	90	--	--	119	10
iv.	Do you have access to a radio that function at home?	1124	96	--	--	053	4
v.	During the past three months have you heard, seen, or read anything either on the radio, television or newspaper about family planning/child spacing?	1165	99	--	--	011	1
vi.	Have you ever heard of an illness called AIDS	1162	99	--	--	014	1

Table 3 showed that 76% of the respondents agreed with the statement that it is possible for a healthy looking person to be infected with the AIDS virus, while 24% disagreed. Majority (98%) of the respondents did or could not identified anybody with AIDS or the virus that causes AIDS,

Table 3: Level of awareness of HIV/AIDS transmission among junior secondary school students in south-west Nigeria

Response		Yes	%	Don't No	%	No	%
i.	Is it possible for a healthy looking person to be infected with the AIDS virus?	894	76	--	--	282	24
ii.	Do you know someone personally who has AIDS or the virus that causes AIDS?	026	2	--	--	1150	98
iii.	Can AIDS be transmitted from a mother to a child?	045	4	019	2	1112	94
iv.	Do you know that having a sexually transmitted disease can increase the chance of a person getting AIDS?	783	67	099	8	294	25
v.	Do you know someone personally who died of AIDS?	004	--	--	--	1172	100

while 2% reported that they know or can identify someone with AIDS or its virus that cause AIDS. 94% of the respondents believed that AIDS cannot be transmitted from a pregnant/mother to a child, 4% of the respondents believes it is possible, while 2% remained neutral to the assertion. The results showed that 67% of the respondents know that having a sexually transmitted disease (STD) can increase the chance of a person getting AIDS, 25% did not agreed, while 8% remained neutral to the assertion. All the respondents (100%) have not seen or known someone personally whose death was caused by AIDS.

Table 4: Level of awareness of HIV/AIDS prevention among junior secondary school students in south-west Nigeria.

Responses		Yes	%	Don't	%	No	%
				No			
i.	During the past three months have you heard, seen, or read anything either on the radio, television or newspaper about HIV/AIDS prevention?	1148	98	--	--	028	2
ii.	Do you know if there is anything a person can do to avoid getting AIDS?	1164	99	--	--	012	1
iii.	In your own opinion what can a person do to avoid getting AIDS?	6807	96	118	2	147	2
iv.	Who do you ask or where do you go to get information about HIV/AIDS?	917	78	--	--	259	22

Table 4 shows that 98% of the respondents agreed with the assertion that during the past three months have heard, seen, or read anything either on radio, television, and newspaper about HIV/AIDS prevention, while 2% of the respondents had contrary opinion. Majority (99%) of the respondents knows what to do to avoid getting AIDS, while 1% did not know what to do. This shows that majority of the junior secondary school (JSS) students in south-west Nigeria was well informed about HIV/AIDS syndrome. Majority (96%) of the respondents were well aware what to do to avoid getting AIDS, 4% of the respondents did not know what to do in order to prevent getting AIDS. The level of awareness of prevention of HIV/AIDS is high in south-west Nigeria due to the introduction of sex education in the 6-3-3-4 universal basic education (UBE) policy. 78% of the respondents know who they ask or where to go to get information about HIV/AIDS, while 22% did not. This shows that more awareness and orientation programmes still needs to be done for JSS age-group (08 – 12yrs) in south-west Nigeria.

Table 5 shows that majority (92% and 99%) of the respondents did not discussed about HIV/AIDS with their friend or relative, respectively, while very few (8% and 9%) of the

Table 5: Perception of risk-taking in casual and unprotected sex among junior secondary school students in south-west Nigeria

Responses		Yes	%	Don't	%	No	%
				No			
i.	Have you ever talked about HIV or AIDS with your friend?	092	8	--	--	1084	92
ii.	Have you ever talked about HIV or AIDS with your relative?	017	1	--	--	1159	99
iii.	How much are you at risk of contracting HIV/AIDS?	107	9	--	--	1069	91
iv.	Where can one obtain a condom?	3263	94	218	6	--	--

respondents do discuss HIV/AIDS with their friend and relative, respectively. About 91% of the respondents believed emphatically that they were not (low) at risk of contracting HIV/AIDS, while (9%) of the respondents agreed that they were at high risk of contracting HIV/AIDS due to their proximity to casual sexual activities. The results of the study also showed that 94% of the respondents know quietly where they can obtain condom for use before sex, while 6% of the respondents did not know where to obtain condom before sex. This shows that JSS students in south-west Nigeria have previous knowledge about sex, and casual sexual activities right from these (08 – 12⁺ yrs) ages.

Table 6: t-test correlation among rural and urban students of junior secondary schools in south-west Nigeria in terms of HIV/AIDS awareness, transmission, and prevention

Variable	Group	N	\bar{x}	SD	Cal. t_{test} / t_{value}	Remark ($p < 0.05$)
HIV/AIDS Awareness	H ₁ : Rural students	350	1.55	21.33	19.27 > 1.96	Significant difference
	Urban students	826	13.50			
HIV/AIDS Transmission	H ₁ : Rural students	350	1.17	13.74	16.91 > 1.96	Significant difference
	Urban students	826	7.58			
HIV/AIDS Prevention	H ₁ : Rural students	350	0.61	18.01	33.58 > 1.96	Significant difference
	Urban students	826	26.47			

N= Number of sample, \bar{x} = Mean of number, SD= Standard deviation

Table 6 showed the correlation among rural and urban junior secondary school students in south-west Nigeria in terms of HIV/AIDS awareness. The rural JSS students had a mean score of 1.55 and the urban JSS students had a mean score of 13.50. Using the independent t-test, the value of calculated t (t_{cal}) is 19.27 and the value of critical t (t_{cri}) is 1.96 at alpha 0.05. The value of t_{cal} is greater than the t_{cri} , hence, the null hypothesis was accepted and the alternative hypothesis rejected. In terms of HIV/AIDS transmission, the rural JSS students had a mean score of 1.17 and the urban JSS students had a mean score of 7.58. Using the independent t-test, the value of calculated t (t_{cal}) is 14.91 and the value of critical t (t_{cri}) is 1.96 at alpha 0.05. The value of t_{cal} is greater than the t_{cri} , hence, the null hypothesis was accepted and the alternative hypothesis rejected. In terms of HIV/AIDS prevention, the rural JSS students had a mean score of 0.61 and the urban JSS students had a mean score of 26.47. Using the independent t-test, the value of calculated t (t_{cal}) is 33.58 and the value of critical t (t_{cri}) is 1.96 at alpha 0.05. The value of t_{cal} is greater than the t_{cri} , hence, the null hypothesis was accepted and the alternative hypothesis rejected.

DISCUSSION

The study showed that an appreciable numbers of students in the selected schools participated in the study. The finding revealed that majority of the respondents was female, between age 11 to 12 and their position in the family was not first born. This report corroborates earlier findings of Negnessie (1997), Okanlawon & Adeyemo (2004) and Gashew et al. (2011) that the respondents used for their study were between 09 and 12 years. This must have been one of the reasons for genders and HIV/AIDS critical issues studies focused on girls and women. Awareness on HIV/AIDS in different communities depend on the information available to the people and their knowledge on HIV/AIDS cannot be overemphasized (UNAIDS, 2004). The findings of this study indicated that although the respondents were aware of family planning/child spacing, disease called AIDS, the sources of their information was limited to radio, television and newspaper at home and not in schools. The implication was that the information that could

not be adequate on the awareness of HIV/AIDS existence among JSS students in South west Nigeria as it was not received in schools.

In addition, the study revealed that the level of awareness of HIV/AIDS transmission among the youths was low, as most of the respondent did not agree with the statement categorically giving awareness of the transmission of HIV AIDs. In similar studies of Adebajo *et al.* (2002); Meraku *et al.* (2002) and Ugoma, Kooffreh & Nwauche (2011) they reported high knowledge of HIV/ AIDs. This did not support the finding of this study. Students in South-west Nigeria had no deep understanding and satisfactory awareness of transmission of the disease at schools. Probing further on the respondents, on awareness of HIV/AIDS prevention, the finding revealed that majority of the respondents was aware of preventable measures of HIV/AIDS. On awareness of HIV/AIDS prevention, this study corroborates that of Onwujekwe *et al.* (2000) and Kaiser & Dailly (2015) that the level of general awareness on HIV/AIDS prevention was very high among secondary school students.

The findings of this study also revealed that prevention of risk taking in casual and unprotected sex was high. This is in line with the report of Negussie (1997), Start (1998), Agrawal *et al.* (1999) and Gashaw *et al.* (2011) that only 25% of the students obtained information and knowledge on prevention of risk-taking in casual and unprotected sex and that the information was from their teachers. This finding emphasized the need to improve the roles of teachers in HIV/AIDS awareness in risk-taking programmes in schools. This is important because educating school children about safe sex, not only the use of condom, is one of the most ways to postponing the on-set of sexual activity among them. According to Agrawal *et al.* (1999), programmes on risk-taking in casual and unprotected sex among secondary students had been reported a marked improvement and had been associated with a positive change of students' attitude towards casual and unprotected sex.

Furthermore, the findings on correctional study among the students whether living in rural or urban setting revealed that there was no statistical difference between the students' level of awareness of the existence, transmission, and prevention of HIV/AIDS in South West Nigeria. The student were aged 8 - 12⁺ yrs and result indicated that 79% of the students sampled understand and appreciate HIV/AIDS problems and there was no statistical difference between gender at $p < 0.05$ on knowledge of HIV/AIDS problems. This collaborated with the work of Ugboma, (2011).

This implies that the location of the schools had no bearing with the information required in HIV/AIDS awareness on existence, transmission and prevention in south-west Nigeria. Thus, as agreed upon by the students in the study, among the harmful social norms and practices that increase the vulnerability of students are those that restrict to adequate information provided in the school through mass media. This is an encouraging finding which should be strengthened by establishing HIV/AIDS youth clubs in schools in south-west Nigeria where not only the prints but also electronic media would be used to constitute the most important mode for teaching and learning sex education.

CONCLUSION AND RECOMMENDATIONS

It has been observed that the seal and awareness of preventing HIV/AIDS in Nigeria is gradually going down nowadays, probably due to the economic down trends the nation is experiencing as a result of global economic downtrends. Moreover, much as being writing and says about prevalence of HIV/AIDS in adolescence, young adult and adults, but old children (9 – 12yrs) have not been seriously looked into and reported. These sets of citizenry, apart from lack of sexual experience and education, are most prone to early sexual debut, sexual abuse, child abuse, and other social vices. Therefore, prevention intervention must address the continuum of prevention from delayed sexual debut to condom promotion, from voluntary counseling and testing to stigma reduction at the community level. The following recommendations were offered based on the study outcome that projects and programmes such as youth and gender friendly institutions should be established to reduce the spread of HIV/AIDS by teaching young people should be mounted in schools through workshops, community education and media advocacy in schools. Government should purchase television and radio sets for the use of students in schools where programs on HIV/AIDS could be mounted for adequate information. Lastly, HIV/AIDS

life skills curriculum should be designed not only in secondary schools but also in primary schools in an effort to reach young people on adequate knowledge on HIV/AIDS.

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REFERENCES

- Abubakar, A. (2008). 300.000 have HIV/AIDS in Bauchi. G. Omotosho (ed.). *The Nation*, 1 (0155), 26-34pp.
- Adebajo, S.R., Mafemi, S. Moreland and N. Marray (2002) knowledge, attitudes , sexual behavior among the Nigeria military concerning HIV/AIDS and STDS. *Technical Report*, 3-5pp.
- Agrawal, H, R. RAO, s. Chand raschekar and J. Contlter (1995) Knowledge of attitudes to HIV/AIDS of SSS pupils and trainee teachers in Udupi District karmetaka, India *Annual Tropical Pediatrics Journal*, 19, 143-9.
- Ajidahun, B. O. (2004). Pre-marital sex among adolescents: Causes and solutions. *International Journal of Gender and Health Studies*, 2 (1 & 2), 70 – 78.
- Akorede, O. D. (2004). HIV/AIDS – An epidemiological risk to the health of the Nigerian nation. *Nigerian School Health Journal*, 16 (1 & 2), 11 – 16.
- Apata, T. G. (2003). HIV/AIDS: A treat to youth, rural women and agriculture in Nigeria. Centre for gender, governance and development CEGGAD, community mobilization and enlightenment. *Handbook series*, 1 (1), 1 – 4.
- Apata, T. G., Omidiji, J., & Adegbola, T. (2004). Youths and HIV/AIDS in Nigeria. Paper presented at the conference of “Inform Package” training on data sieving and transfer for TDF (clinical drug trials) of HIV/AIDS prevention and safety project phase 2, Tema Ghana. Sponsored by Family Health International between 25th – 28th April.
- Apata, T. G. (2007). Interactions between the agricultural sector and the HIV/AIDS pandemic: Implications for agricultural policy. *Staff seminar* presented at College auditorium, Joseph Ayo Babalola University, Ikeji Arakeji, held on 14th February.
- CANUK (2011). <http://www.about the country Nigeria>. Retrieved 2nd February, 2015.
- Chibuogwu, V. N. (2004). The HIV/AIDS virus: A continuous challenge to women in developing countries. *International Journal of Gender and Health Studies*, 2 (1 & 2), 165 – 171.
- Federal Ministry of Health (2004). Seroprevalence survey. Abuja, Federal Ministry of Health FMH press.
- Kaiser, G. (2004). HIV prevalence in Uganda drops 70% since early 1990s because of HIV/AIDS prevention campaign. *Daily HIV/AIDS Report*. www.Kaisernetawe.org. assessed 12/03/2016).
- Khanna, J. (2002). Promoting the sexual and reproductive health needs and rights of adolescents. *Reproductive Health Researcher*, 58, 2 – 3.
- Makinwa, A. (1992). *A common cause-young people sexually and HIV/AIDS in three African countries*. Ibadan, African University Press Limited.
- Negussie , T. (1997). Sexual activity of out –of- school youths, their knowledge and attitudes about STD/HIV/AIDS in Southern Ethiopia. *Ethiopia Journal of Health and Development*, 11(1), 29 - 36.
- Ogundele, B. O. (2004). The level of Federal College of Education (Special), Oyo about the spread and prevention of AIDS. *Nigeria School Health Journal*, 16 (1 & 2), 107 – 116.
- Ojo, T. F., Ajika, K. O. and Faborode, H. F. B. (2006). The effects of HIV/AIDS on rural household livelihood in Nigeria: Anticipating the consequences. Proceedings of the 8th National Research Conference and Network Meeting of CYIAP in Nigeria, held in University of Ilorin, Ilorin, Kwara State, between 27 – 30th November.

- Okanlawon, F. A. (2001). AIDS epidemics in Nigeria: A great challenge to the youth's survival. *Nigeria School Health Journal*, 13 (1 & 2), 153 – 159.
- Okanlawon, F. A. and Adeyemo, F. O. (2004). Knowledge of HIV/AIDS, sexual behaviour and risk perception among students of tertiary institutions in Atisbo local government area of Oyo state. *West African Journal of Physical and Health Education*, 8, 200 – 210.
- Onwujekwe, D.I., E. Idigbe and M.M. Ibrahim (2000) The epidemiology of HIV in this changing trends and new challenges. Niger International Conference on AIDS, p. 13.
- Oppong, J. R. and Agyei-mensah, S. (2004). HIV/AIDS in West Africa: The case of a Senegal, Ghana, and Nigeria. In HIV/AIDS in Africa: Beyond epidemiology. (Eds). Exekiel Kalipeni, Susan Cradock, Joseph R. Oppong, & Jayati, Ghosh. Oxford, Blackwell, 70 – 82.
- Osagbemi, M. O. (2005). Sexual behaviour of urban street children in Northern Nigeria: Implication for promoting knowledge of AIDS/STDs and responsible sexual behaviour. *Agency for Children in Crisis (AFC HIC)*, 26 – 37.
- Oyeniran, M. (2008). 3 million Nigerians will die of AIDS by 2010. In: S. Olatunji (ed.). *Nigerian tribute*, 15, (14,434). Ibadan: The African Newspaper of Nigeria.
- Ross, D. and Ferguson, B. (2006). HIV/AIDS in young people: A systematic review of evidence from developing countries. Geneva: WHO, 2006.
- Shrifera, et al (2011) of knowledge, attitude and risk behavior towards HIV/AIDS and other sexual transmitted infection among preparing students of Gonder town, North West Ethiopia Bio Medical Central (BMC) Research Notes. www.biomedcentral.com. Retrieved on 11/03/2016.
- Slont, R. (1998) Teaching safe sex in school. *Int. Journal CynaecolOsslet*, 63(1) p. 147-150.
- The Cup Project (2001). HIV/AIDS questionnaire. www.avert.org. Accessed May, 2011.
- Ugbama, H.A.A., M.E. Kooffreh and C.A. Nwauche (2011) Gender differences in students' Gender differences in students' knowledge of HIV/AIDS in the Niger Delta, *Journal of Clinical Medicine and Research*, 3 (1) pp. 20-22. www.academyjanah.org/JCMR 10/03/2016.
- UNAIDS/WHO AIDS Epidemic update 2007,2008, ((2015). Young people and HIV, the threat for today's youth. Global report on the global AIDS epidemic, pp. 93-98.
- UNAIDS (2004). Report on the global AIDS epidemic, 4th global report. <http://www.unaids.org>
- UNAIDS (2006). Joint report of global estimates of HIV/AIDS update. www.unaidswho.aids/globalestimates.htm. Accessed December 14, 2014.
- UNAIDS/WHO (2003). AIDS epidemic update. Joint Report of Global Estimates of HIV/AIDs. www.unaidawho.aids/globalestimates.htm. Accessed 18th May, 2008.
- Vallaey, C.C (2016) Gender in the HIV/AIDS Epidemic in Africa. Markkula centre for Applied Ethnic, Clera www.Sch.edu/ethic 10/03/2016).
- WHO (1994). AIDS: Images of the epidemic. Geneva, World Health Organization.