

## KNOWLEDGE OF HIV/AIDS AMONG SECONDARY SCHOOL ADOLESCENTS IN CALABAR –NIGERIA

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### Key words

HIV/AIDS, awareness, knowledge, secondary school

### Abstract

**Background:** Awareness about HIV/AIDS has been created through the media, workshops, and peer education and printed materials. The aim of this study was to establish the impact of these awareness programmes on student.

**Method:** An observational study using structured questionnaire among secondary school students.

**Results:** About 181 (31.2%) of the adolescents did not know the aetiological agents of HIV/AIDS. Majority, 522 (90%) knew HIV/AIDS was transmitted through sexual intercourse. This level of knowledge was related to sex and class of study. Only 78 (13.4%) of them knew that HIV carriers might look normal. Majority, 519 (89.5%) did not know the features of AIDS. Only a few, 281 (48.4%) of the adolescents knew that avoidance of sex, keeping one sexual partner, 15 (2.6%), use of condom 101 (17.4%) and screening blood before transfusion, 31 (5.3%) could prevent HIV/AIDS transmission. Mass media was the main source of information on HIV/AIDS to these adolescents. About 191, (32.9%) of them believed HIV/AIDS cannot be prevented; 228 (39.3%) felt HIV/AIDS is common among the uneducated; 127 (21.9%) thought it is not common in Nigeria and 143 (24.7%) believed it is not common among the youths.

**Conclusion:** Although awareness on HIV/AIDS is high among Secondary School adolescents in Calabar, the knowledge of the disease is still poor. Mass media as a source of information does not allow in-depth knowledge of the disease. Parents, teachers, as well as Health workers should be more involved in educating the youth on this dreaded disease.

### Les mots clés

VIH/SIDA, la conscience, la connaissance, l'école secondaire

### Résumé

**Fond:** la Conscience de VIH/SIDA a été créée par la presse, les ateliers, l'éducation de pair et les matériels imprimés. Le but de cette étude était d'établir l'impact de ces programmes de conscience sur l'étudiant.

**Méthode:** une étude d'observation en utilisant le questionnaire structuré parmi les étudiants d'école secondaire.

**Résultats:** à peu près 181 (31,2 %) des adolescents n'ont pas connu les agents aétologiques de VIH/SIDA. La majorité, 522 (90%) a connu que VIH/SIDA a été transmis par les relations sexuelles. Ce niveau de connaissance a été attribué au sexe et à la classe d'étude. Seulement 78 (13,4 %) d'eux ont connu que les porteurs de VIH peuvent paraître normaux. La majorité, 519 (89,5 %) n'ont pas connu les caractéristiques de SIDA. Seulement quelques-uns, 281 (48,4 %) des adolescents ont connu que l'abstinence, gardant un partenaire sexuel, 15 (2,6%), l'usage de préservatif 101 (17,4 %) le criblage de sang avant la transfusion, 31 (5,3 %) pourrait empêcher la transmission de VIH/SIDA. Les médias étaient la source principale d'information sur VIH/SIDA à ces adolescents. Environ 191, (32,9 %) d'eux ont cru que VIH/SIDA ne peut pas être prevenu; 228 (39,3 %) ont pensé que VIH/SIDA est commun parmi les incultes; 127 (21,9 %) ont pensé

qu'il n'est pas commun au Nigéria et 143 (24,7 %) ont cru qu'il n'est pas commun parmi les jeunes.

**Conclusion:** bien que la conscience sur VIH/SIDA est haute parmi les adolescents d'école secondaires à Calabar, la connaissance de la maladie est toujours inadéquate. Les médias comme une source d'information ne permet pas la connaissance approfondie de la maladie. Les parents, les enseignants, de même que les ouvriers de santé devrait être plus impliqués dans l'éducation des jeunes sur cette maladie redoutée.

## Introduction

The first documented case of AIDS in Sub-Saharan Africa was in 1982.<sup>1</sup> Since then the disease has had its toll on every part of Africa. So far the developed countries have been able to control the pandemic in their population through primary, secondary and tertiary levels of prevention. The developing countries, however, are still grappling at the primary level of prevention. This is evident in studies that have shown increase sexuality among the adolescents<sup>2-4</sup> low usage of condom,<sup>2-4</sup> and inconsistent measures towards reduction of disease transmission among the sexually active.<sup>4</sup>

The younger age group has been identified as bearing half of the burden of HIV worldwide.<sup>4</sup> This is because of the sexual behaviour of the youths. They are sexually active at an earlier age. In some instances, age at first intercourse has been reported as below 11 years.<sup>5</sup> They are more prone to unsafe sex practices and have poor access to contraceptives.

Awareness about HIV/AIDS has been created through the media, workshops, and peer education and printed materials. The impact of these awareness programmes is evaluated in this study.

## Materials and Methods

The study was sited in Calabar comprising Calabar South and Calabar municipality. Information about the schools was obtained from the State Ministry of Education. There are 25 government secondary schools and 21 private secondary schools in the study area. Three secondary schools were selected based on single sex school or mixed school. The schools were grouped into boys' only school, girls' only school and co-educational school. The boys' only school and the girls' only school were each two in number while the co-educational schools were 42. One school was randomly selected from each of the three groups of schools to study the impact of gender mix on uptake of HIV/AIDS education.

The three schools selected were predominantly day schools (one of the schools provides accommodation for less than 10% of the students). Two of the schools (the boys' and the girls') were government schools. However, at the time of data collection the two schools were on a transitory phase of being changed to private schools so they had a

mixture of private and public students. The co-educational school was a private school.

The minimum sample size was determined using the formula for single proportion. Based on the estimated level of knowledge of 47.6% (Anochie and Ikpeme) and the precision level of 5%, the minimum sample size was estimated to be approximately 400. However, 600 students were sampled (200 students in each school) to allow for non-response.

Permission was obtained from the principals of the schools before embarking on data collection. The total number of the students in the 3 schools was 3713. An average of 7 students was drawn by systematic random sampling method from each class from JSS1 to SS3 (88 classes) in each of the schools. Informed consent was obtained from the selected students. Data collection was carried out between March and April of 2003 using semi-structured questionnaire. The questionnaire included socio-demographic data of the students, knowledge on HIV and AIDS, prevention of HIV and source of information on HIV/AIDS.

Scores of 4 was awarded on each correct response to 17 close ended questions and 8 for each correct response to 4 open ended questions as open ended questions require a more in depth knowledge to answer than the close ended questions.

## Results

Table 1 shows the general characteristics of the study population. Response was obtained from all 200 students sampled in 2 schools and 180 from one school. The males were 272 (46.9%) and the females were 308 (53.1%). The age of the participating students ranged from 10 to 22 years while the mean age was 14.69 (SD 4.18). Mean age per class is also shown in Table 1.

Only 241 (41.5%) of the adolescents knew what the acronym HIV stands for and 249 (42.9%) knew AIDS represent.

### Aetiology of HIV/AIDS

Three hundred and ninety nine (68.8%) of the participants knew that HIV/AIDS was caused by a virus. Others either did not know or thought it was caused by a bacteria or a worm. The difference in knowledge of the aetiological agent of HIV was statistically different between males and females ( $p = 0.05$ ), but was not different between the junior and the senior classes ( $p = 0.53$ ) (Table 2).

Mode of transmission

Majority, 522 (90%) of the students knew that HIV/AIDS was transmitted through sexual intercourse. There was no difference between females and males ( $p = 0.54$ ), but there was a statistically significant difference between junior and senior classes ( $p = 0.00$ ). Other modes of transmission as mentioned by varying proportion of participants were blood transfusion 480 (82.8%), barbing 447 (77.1%), injections 315 (54.4%), scarification 256 (44.2%) and sharing of cup and spoon 152 (23.4%) (Table 3).

Recognition of HIV/AIDS patients

Seventy eight (13.4%) participants knew that HIV carriers look normal. The difference in knowledge was statistically significant between classes ( $p = 0.00$ ), but not sex ( $p = 0.18$ ) (Table 2). The participants that knew the various symptoms of AIDS were fever 61 (10.5%), chronic cough 43 (7.4%), diarrhoea 26 (4.5%), and weight loss 25 (4.3%).

Prevention and cure of HIV/AIDS

Abstinence from sex was the commonest mode of HIV/AIDS prevention mentioned by 281 (48.4%) participants. Others were avoidance of sharp instruments 106 (18.3%), use of condom 107 (17.4%), ensuring blood is screened before transfusion 31 (5.3%), keeping of one sexual partner 15 (2.6%). Many, however, (51.6%) did not know how HIV/AIDS could be prevented. Soaking of blade in bleach to make it safe for use was known by only 20 (3.5%) participants. Majority believed that soaking in methylated spirit makes blade safe. Four hundred and seventeen (71.9%) believed that AIDS could be cured.

Sources of information on HIV/AIDS

Main sources of information of the participants on HIV/AIDS were television 309 (53.3%), radio 254 (43.8%), health talks in clinics/hospitals 214 (36.9%) and newspapers/magazine 203 (35%). Parents recorded the lowest 13 (2.2%) source of information.

Attitude and belief

One third, 191 (32.9%) of the students believed HIV/AIDS couldn't be prevented. Two hundred and twenty eight (39.3%) believe it is more common among the uneducated. One hundred and twenty seven ((21.9%) claim it is not common in Nigeria and 143 (24.7%) believe it is not common among youths. Two hundred and twenty one (38.1%) believe AIDS patients should not be taken care of at home.

Scores

The average knowledge score was 47.6%. Table 3 shows that knowledge increased with class.

Table 1: Characteristics of study population

Sex	No. (%)
Male	272 (46.9)
Female	308 (53.1)
No. of respondents/school	
EMGS	200
HWTI	200
ESCS	180
No. of respondents/class	
Junior class (JSS1 – JSS3)	287
Senior class (SS1 – SS3)	293
Mean age of participants	14.69 years (SD 4.18 years)
Average age in class	
Class	Age (years)
JSS1	12.43
JSS2	13.41
JSS3	14.01
SS1	15.50
SS2	16.34
SS3	16.51
Know the meaning of the acronym	
AIDS	249 (42.9%)
Know the meaning of acronym HIV	241 (41.5%)

EMGS – Ederly Memorial Secondary School; HWTI – Hope Waddel Training Institution ; ESCS – Eastern Secondary Commercial School; JSS – Junior Secondary School; SSS – Senior Secondary School

Table 2: Sex and class compared with knowledge on HIV/AIDS

Knowledge	Sex/Class	No. that know	X <sup>2</sup>	p value
On aetiology	Sex			
	Male	198 (72.8%)	0.38	0.53
Female	201 (65.3%)			
Class	Junior	194 (67.6%)	0.38	0.53
	Senior	205 (66.6%)		
Sex as a mode of transmission	Sex			
	Male	247 (90.8%)	32.61	0.00*
Female	275 (89.3%)			
Class	Junior	246 (85.7%)	11.59	0.00*
	Senior	276 (94.2%)		
HIV carrier looks normal	Sex			
	Male	36 (13.2%)	1.75	0.18
Female	42 (13.6%)			
Class	Junior	22 (7.7%)	16.32	0.00*
	Senior	56 (19.1%)		

\*Statistically significant: df = 1

Table 3: Knowledge Score of Students on HIV/AIDS

Class	Score (%)	F stat	p value
JSS1	39.06	10.14	0.0000
JSS2	45.82		
JSS3	44.60		
SS1	49.64		
SS2	52.36		
SS3	52.29		
Junior	44.1		
Senior	51.2		
Average general score	47.69		

## Discussion

Several studies have reported that the level of awareness on HIV/AIDS is high in Nigeria.<sup>5-8</sup> HIV/AIDS may be a household name but the knowledge about the disease is still vague as is illustrated in this study. Only 42.9% knew what the acronym HIV and 41.5% knew what AIDS stand for. This is similar to the report by Anochie and Ikpeme in Port Harcourt where the knowledge for the acronym AIDS was known by 47.6% of pupils studied.

About a third (31.2%) of the participants did not know the aetiological agent of HIV/AIDS. Still a smaller proportion (13.4%) knew that HIV patients look normal. Majority (89.5%) did not know any sign or symptoms of AIDS. Fever and chronic cough were the commonest symptom known by 61 (10.5%) and 43 (7.4%) participants respectively. Ayankogbe et al reported a higher percentage of 42.3% of people who knew that HIV patient look normal and 34.9% who admitted they could not recognise an AIDS patient.<sup>6</sup> It is apparent from this study that most of the students do not know how AIDS present clinically.

The commonest mode of transmission mentioned by the students was sexual intercourse, 522 (90%). The awareness of sex as the major route of transmission is high among different study groups in Nigeria.<sup>5, 6</sup> This knowledge was not, however, linked with the knowledge of how to protect oneself against the disease. Only 281 (48.4%) knew that avoidance of sex could prevent acquiring HIV/AIDS. Keeping to one partner was mentioned by 15 (2.6%). This shows a deficiency in the health education programme on AIDS.

Information on AIDS is more frequently reported to be obtained from the mass media.<sup>5, 6</sup> In this study television and radio were also the two main sources of information on HIV/AIDS. It is apparent that the mass media has succeeded in creating awareness on HIV/AIDS but is inefficient to impact sufficient knowledge that will aid in controlling the disease. Since this problem is linked with a persons' life style and attitude, there is need to follow up the awareness created by the mass media with a more detailed person to person health educational approach. This could be achieved through teachers and parents who at the moment are making very little impact as

evidenced by only 129 (22.6%) and 13 (2.2%) of the students receiving information from teachers and parents respectively.

The poor reading culture of the students is also apparent in this study. There is vast amount of literature on HIV/AIDS. If the students had a good reading culture there would have been a higher report of those who got their information from journals, magazines and books. This could explain why the average knowledge score of the students was low (47.69%).

The poor knowledge of the students has also influenced their attitude and belief pattern. Erroneous belief such as HIV/AIDS being more common among the uneducated, and transmission of HIV/AIDS through sharing of cups and spoons are clear indication of poor knowledge of the epidemiology of the disease. Some (38.1%) also will not want AIDS patients to be taken care of at home. This will result in poor attitude towards people living with HIV/AIDS in the community.

## Conclusion

General awareness on HIV/AIDS may be high but the specific knowledge of the disease is still poor. This has contributed to erroneous beliefs and poor attitude towards those living with AIDS. This may be attributed to the source of information which dose not allow in depth knowledge of the disease. Parents and teachers have a role to play to educate the youths on the pandemic and thus help in prevention and control of the disease.

The students should also be encouraged to read by making literature on HIV/AIDS available in their schools. Peer health educators could also be trained to educate their peers on HIV/AIDS issues.

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