

Perception of HIV/AIDS among Rural Secondary Students in UGA, Aguata Local Government Area, Anambra State, Nigeria

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Abstract

Human immunodeficiency virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) is a global pandemic with its occurrence reported from all countries of the world. Adolescents and young adults 15-24 years form the largest group at risk of the infection and hence the need for assessment of their perception of the disease. The study is a descriptive cross sectional study of students of a rural secondary school using self-administered structured questionnaires. Two out of the three government owned secondary schools in Uga were randomly selected and 201 students were sampled using the stratified random sampling technique. All the students have heard about HIV/AIDS but only 157 (78.1%) could correctly say that the infection is caused by a virus. Erroneous causes of the infection like mosquito bite (7.5%) and drinking from dirty water (2%) were also recorded. On the route of transmission, 44.8% and 43.5% of students respectively identified blood transfusion and sexual intercourse as the modes of transmission of the infection. Attitude of the students towards HIV/AIDS was poor as 52.2% would not care for HIV/AIDS patients because of fear of becoming infected. Of the 201 students, 42.3% of the students were sexually active. Condom use was the highest preventive measure practiced (56.6%) and erroneous preventive measures recorded were use of herbs (3.5%), antibiotics (18.2 %) and hot drinks (9.4%). The students had poor knowledge, attitude and practice of HIV/AIDS preventive measures against HIV/AIDS. The need for a school based HIV/AIDS awareness program is advocated. School heads, Community heads, Town unions, Women meetings, Electronic and other mass media should be encouraged to carry out more public enlighten campaigns on HIV/AIDS infection.

Keywords: AIDS; Africa; Polygamy; Teenagers; Infection

Introduction

Acquired immunodeficiency syndrome (AIDS) is a multi-systemic illness caused by a retrovirus known as the Human Immunodeficiency Virus (HIV). The virus destroys the immune system, leaving the victim vulnerable to a host of life threatening opportunistic infections and unusual malignancies [1]. HIV/AIDS affects both developed and developing countries as well as the young and adult populations. At the meeting of AIDS experts in Switzerland in May 2001, HIV/AIDS was declared "the most devastating pandemic in human history" [2]. The scourge of HIV/AIDS poses a global threat to human existence and has no regards for race, class or creed. The infection progresses at rapid pace among young people who form a significant group of those that are sexually active [3]. Adolescent and young adults have been identified as bearing half the burden of HIV infection worldwide [4].

HIV/AIDS has had huge impact on global health statistics in the past three decades [1]. Globally, the number of people living with HIV (PLHIV) was 36.7 million in 2016 with a cumulative total death of 35 million [1]. Worldwide, it is reported that young people are the major group at risk of HIV infection [5]. In the United States, HIV/AIDS is

still the sixth leading cause of death among 15-20 years of age; one in every five adolescents may have acquired a sexually transmitted infection by the time they are 21 years [5].

The impact of the disease is greatest in sub-Saharan Africa which is home to 70% of the global population of people living with HIV/AIDS (PLHIV) [6]. About 9% of the world's HIV-infected population lives in Nigeria, making it the country with the second largest number of PLHIV after South Africa [6]. The national prevalence of HIV/AIDS in Nigeria is 3.4% with most of the cases occurring in patients who are more than 15 years [6]. The prevalence of HIV/AIDS varies in different states and it is related to cultural differences, varying levels of education, religion and different socioeconomic status [6]. Practices like exposure multiple sexual partners, female genital mutilations and tattooing cause an increased risk of HIV transmission [6].

HIV is principally transmitted through sexual intercourse [6]. It may also be transmitted from mother to child or by use of contaminated sharp objects. Unfortunately, the adolescents are becoming sexually active at an increasingly earlier age without having a stable sexual relationship which predisposes them to unsafe sexual practices and sexually exploitation by adults [7]. Cultural beliefs often reflect ignorance about HIV/AIDS; some believe that it is caused by

witchcraft and help may be sought from witch doctors, some opine that it is a white man's invention/disease and can be cured via sex with a virgin [2]. There are also prevalent cases of polygamy, permissive adultery, widows' inheritance and erroneously belief by people that HIV/AIDS is not real [2].

Objectives

The main objective of the study was to investigate the perception of HIV/AIDS among rural secondary school students in Uga community, Aguata Local Government Area, Anambra State. The specific objectives were to determine the knowledge of the rural secondary students to HIV/AIDS and to identify their beliefs and practice of preventive measures.

Material and Methods.

Study Area

The study area is Uga community in Aguata Local Government Area of Anambra State. Uga consists of four villages namely Umueze, Umuoru, Awalasi and Oka. It is ruled by a traditional chief designated as Igwe. According to the 2006 census, Uga has a population of 64,179 inhabitants. It is located east of the River Niger about 149 m above the sea level at latitude 5.56°N and longitude 7.05°E and falls within the tropical rainforest region of Nigeria. The community experiences two seasons which are the dry season (November to March) and rainy season (April to October). During the dry season, it experiences a short spell of cold dry harmattan from December to early February.

There are several Health Centres with at least one situated in each of the villages. There are also several private hospitals in Uga.

The town has six government owned primary schools and many other private/mission owned primary schools. Also are three government owned secondary schools with many other private/mission secondary schools. There is no tertiary institution in the town.

The people of the town are mainly Christians with many church buildings for the different denominations scattered all over the community. There is one big market called "Oye Uga" and other smaller markets in each of the four villages. The occupation of the people are mainly farming and trading. The inhabitants of Uga depend on agriculture and commerce for their daily livelihood. They produce food crops especially yams, cocoyam, banana, plantain, vegetables and fruits.

Ethical consideration

The study was approved by the ethical committee of the Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi. A letter of introduction and project intent from the head of Department of Community Medicine, Nnamdi Azikiwe University Awka to the principals and management of the selected schools, was used to obtain permission to carry out the studies in the schools. Informed consent of the staff and students were obtained through proper explanation of the purpose and gains of the study. To ensure sincerity in their responses, the students were asked not to put down their names. They were also reassured of their safety and confidentiality of the study.

Study design

The study is a descriptive cross sectional survey of senior secondary school students in Government owned secondary school in Uga, Aguata Local Government Area. Two secondary schools in the area

were selected from the three Governments owned Secondary school in the Area, based on their population.

Sample size

From two selected government owned secondary school, 210 students were recruited for the study, 105 students from each school. These students were chosen from already existing strata of SS1, 2 and 3 classes, from which 35 students were randomly selected, using the simple balloting.

The population of the secondary school sample size was determined as defined by the formula [8]:

$$N = \frac{Z^2PQ}{D^2}$$

N=Minimum sample size

Z=Standard normal deviate=1.96

P=Prevalence of HIV among pregnant women in Benue state = 16.1% [9]

Q=1-P

D=Degree of precision 0.05

Administration of questionnaire

A total of 201 structured questionnaires were hand-delivered to and collected from the students after filling in their responses. In addition to their demographic characteristics (age, class, parents, occupation and religion). The questionnaire also sought information on the students' knowledge of transmission, etiologic agent, sexual experience, attitude and preventive measures against HIV/AIDS infections.

Data analysis

Data was analysed using the statistical package for social sciences (SPSS Version 20). The significance levels of the results were tested using Chi square at 5% significance level.

Limitations

The result was carried out at a time when the SS3 students were writing their final examinations making it impossible to actualise the calculated sample size.

Sexual behaviours and practices are sensitive topics that many youths are reluctant to talk about casting doubt on the accuracy of the information provided.

To overcome these limitations, the students were encouraged to fill the questionnaire without putting down their names on it.

Results

Of the 201 students selected for the study, 107 (53.2%), were males and 94 (46.8%) were females: 103 (51.2%) were in SS1 and 98 (48.8%). Their parent's occupations were civil service (10.4%), farming (22.9%) and trading. All the students were Christians (Table 1).

On the knowledge of HIV/AIDS (Table 2), all the 201 students have heard about HIV/AIDS. Of this number, 180 students {103 (57.2%) males and 77 (42.8%) females}, got the meaning of HIV/AIDS correctly. While 115 (57.21%) knew about HIV/AIDS control program. Only 157 (78.1%) of the students correctly answered that HIV/AIDS is

caused by a virus. Other answers were bacteria (9.9%), witch craft (3.98%), worm (1.99%) and dirty water (5.97%).

On the students' knowledge of the modes of transmission of HIV/AIDS, (table 3), 81(40.29%) identified unprotected sex as the mode of transmission of HIV/AIDS, 90(44.78%) blood transfusion, 15 (7.46%) mother to unborn child, 46 (22.89%) sharing of sharp objects, 10 (4.97%) kissing, 15 (7.46%) mosquito bites and 4 (1.99%) drinking dirty water.

The students' knowledge on who could be affected by HIV/AIDS (susceptible persons) is shown in table 4. Of the 201 students interviewed, 182 (90.55%) of the students correctly stated that HIV/AIDS affects everybody while 12 (5.97%), 3 (1.49%) and 4 (1.99%) of the students identified adults, white and blacks respectively as the only people affected by HIV/AIDS. None answered that children could be affected with HIV/AIDS. The students' knowledge on the preventability of HIV/AIDS is shown in Table 5. Of the 201 students, 160(79.6%) were of the view that HIV/AIDS is preventable while 41(20.4%) said it is not preventable [10,11].

Demographic Data	Gender		Total
Age Group	Males (%)	Females (%)	
12-14	7 (3.5%)	6 (3.5%)	13 (6.53%)
15-17	63 (31.3%)	69 (34.3%)	132 (65.7%)

18-20	37 (18.4%)	19 (9.5%)	56 (27%)
Class			
SS1	55 (27.4%)	8 (23.9%)	103 (51.2%)
SS2	52 (25.9%)	46 (22.9%)	98 (48.8%)
Religion			
Christian	107 (53.2%)	94 (46.8%)	201 (100%)
Muslim			
Other			
Parents occupation			
Civil Servant	15 (7.4%)	6 (28.6%)	21
Farming	24 (52.2%)	22 (47.8%)	46.9
Trading	74 (55.2%)	60 (44.8%)	134
Total	107 (53.84%)	94 (46.8%)	201 (100%)

Table 1: Socio-demographic characteristics of the students. (N=201).

		Yes		
		No. of Respondents	Males	Female
A	Have heard about HIV/AIDS	201 (100%)	107 (53.2%)	94 (46.8%)
	Got the meaning of HIV/AIDS	180 (89.55%)	103 (57.2%)	77 (42.8%)
	Those aware of HIV/AIDS control	115 (57.21%)	55 (47.8%)	60 (57.2%)
B	Aetiology of HIV/AIDS Virus			
	Virus	157 (78.11%)	88 (56.1%)	69 (43.9%)
	Bacteria	20 (9.95%)	8 (4%)	12 (60%)
	Witch craft	8 (3.98%)	5 (62.5%)	3 (37.5%)
	Worm	4 (1.99%)	2 (50%)	2 (50%)
	Dirty water	12 (5.97%)	4 (33.3%)	8 (66.7%)

Table 2: Knowledge of HIV/AIDS, meaning and aetiology (N=201).

Mode of Transmission	No. of Respondents	Yes	
		Males	Females
Unprotected sex	81 (40.29%)	39 (48.1%)	42 (51.9%)
Blood transfusion	90 (44.78%)	41 (45.6%)	49 (44.4%)
Mother to child	15 (7.46%)	3 (20%)	12 (80%)
Sharing of sharps	46 (22.89%)	24 (52.2%)	22 (47.8%)
Kissing	10 (4.97%)	5 (50.2%)	5 (50%)

Mosquitoes	15 (7.46%)	11 (73.3%)	4 (26.7%)
Drinking of dirty water	4 (1.99%)	-	4 (100%)

Table 3: Modes of Transmission of HIV/AIDS (N=201).

HIV vulnerable groups	Respondents (Yes)	Males	Females
Adults	12 (5.97%)	6 (50%)	6 (50%)
Children	-	-	-

Whites	3 (1.49%)	2 (66.7%)	1 (33%)
Blacks	4 (1.99%)	2 (50%)	2 (50%)
every body	182 (90.55%)	97 (53.3%)	85 (46.7%)

Table 4: Students knowledge of the vulnerable groups. (N =201).

	Males	Females	Total
HIV is preventable	89 (55.6%)	71 (44.4%)	160 (79.6%)
HIV is not preventable	18 (43.9%)	23 (56.1%)	41 (20.4%)

Table 5: Preventability of HIV/AIDS (N=201).

The students' knowledge on the modes of prevention of HIV/AIDS were 11 (5.47%) for avoiding sex with commercial sex workers to 74 (36.82%) for abstinence from premarital sex. In their order of priority, others responses were avoiding casual sex 45 (22.39%), use of condom

41 (20.40%) and being faithful to one partner, 22 (10.95%). In these responses, more males than the females that had positive responses for the preventive measures except for being faithful to one faithful partner where more females 12 (54.5%) than the males 10 (10.95%) had a higher positive responses.

Modes of prevention of HIV infection	Yes Responses	Gender	
		Males	Females
Prevention by condom use	41	27 (65.9%)	14 (34.1%)
Abstinence from premarital sex	74	44 (59.5%)	30 (40.5%)
Avoiding casual sex	45	13 (28.9%)	32 (71.1%)
Avoiding sex with commercial sex workers	11	11 (100%)	-
Being faithful to faithful partner	22	10 (45.5%)	12 (54.5%)

Table 6: Modes of Prevention of HIV/AIDS. (N=201).

Students Belief	Response (No. of yes)	Gender	
		Males	Females
Belief that HIV/AIDS exists and can cause serious ill health or death.	188 (93.53%)	98 (52.13%)	90 (47.87%)
Do not belief that cause serious ill-health or death.	13 (6.47%)	9 (69.23%)	4 (30.77%)

Table 7: The student's beliefs on the reality of HIV/AIDS. (N=201).

Of the 201 students, 188 (93.5%) of the respondents correctly said HIV is real and can cause adverse complications. More males 98(52.13%) than the females 90(47.87%) believed that HIV/AIDS exists and can cause serious ill health or death. 13(6.47%) students, 9(69.23%) males and 4(30.77%) females do not believe that HIV infection can cause serious complications.

Age of 1st sexual encounter	Yes Responses	Gender	
		Males	Females
Sexually active students.	85(42.29%)	46 (54.1%)	39 (45.9%)
Before 10 years	10(4.98%)	7 (70%)	3 (30%)
10-12 years	16(7.96%)	8 (50%)	8 (50%)
13-15 years	16(7.96%)	7 (43.8%)	9 (56.3%)
16-18 years	17(8.46%)	9(47.1%)	8 (47.1%)
Above 18 years	26(12.94%)	16 (61.5%)	10 (38.5%)

Table 8: Sexually active students and their ages at 1st sexual encounter. (N=201).

Of the 201 students interviewed, 85% of the respondents were sexually active i.e. always having sex, among who were 46 (54.1%) males and 39 (45.9%) females. Of this number, 10 (4.98%) of the students had their first sexual encounter before 10 years, 32 (15.92%) before 15 years, 17 (8.46%) before 18 years and 26 (12.94%) were after the age of 18 years.

Preventive measures	Response (Yes)	Gender	
		Males	Females
Use of condom	48 (56.47%)	32 (66.7%)	16 (33.3%)
Mutual fidelity	10 (11.76%)	3 (30%)	7 (70%)
Hot drinks	8 (9.41%)	3 (37.5%)	5 (62.5%)
Herbs	3 (3.53%)	1 (33.3%)	2 (66.7%)
Antibiotics	16 (18.82%)	7 (43.8%)	9 (6.3%)

Table 9: Preventive measures of HIV/AIDS practiced by the sexually active students (N=85).

On the preventive measures practiced by the sexually active students, use of condom 48 (56.47%), mutual fidelity 10 (11.76%), hot drinks 8 (9.41%), herbs 3 (3.53%) and antibiotics 16 (18.82%).

Regularity of condom use	Responses (Yes)	Gender	
		Males	Females
Used condom always	11 (22.92%)	9(81.8%)	2 (18.2%)
Used condom sometimes	21(43.75%)	12(57.1%)	9 (42.9%)
Used condom occasionally	16(33.33%)	11(68.1%)	5 (31.2%)

Table 10: Regularity of condom use by the sexually active students (N=48).

The regularity of condom usage by the sexually active students that practiced the use of condom were 21 (43.75%) used it sometimes, 16 (33.33%) used condom occasionally while 11 (22.92%) used condom always. The student's willingness to care for HIV/AIDS patients and

their reasons were stated in table 11. All the students 201 (100%) were unwilling to care for HIV/AIDS patients. Their reasons for this unwillingness were fear of being infected 49 (24.38%) and unwillingness to associate with people with HIV/AIDS 54 (26.87%).

Number of Responses	Gender	
	Males	Females
A - Willingness		
Yes	-	-
No	201 (100%)	94 (46.77%)
B - Reasons		
Did not want to be infected.	49 (24.38%)	27 (55.1%)
Did not want to be associated with associated with HIV/AIDS.	54 (26.86%)	34 (62.96%)
C - No answer.	97 (48.29%)	33 (32.99%)

Table 11: The students willingness to care for HIV/AIDS patients (N= 201).

Sources of information	No of Response	Gender	
		Males	Females
Friends	74	49 (66.2%)	25 (33.8%)
School	42	20 (47.6%)	22 (52.4%)
Mass media	51	31 (60.8%)	20 (39.2%)
Church	17	-	17 (100%)
Parents	17	7 (41.2%)	10 (58.8%)

Table 12: The students sources of information on HIV/AIDS (N=201).

The student sources of information on HIV/AIDS pandemic, in decreasing order, were 74 (36.8%) Friends, 51 (25.37%) Mass media, 42 (20.90%) School, and 17(8.46%) each, for church and parents while moreover males 49 (66.2%) and 31 (60.8%) were informed by friends and Mass media. More females 22 (52.4%), 17 (100%) and 10 (58.8%) got their information from school, church and parents respectively.

Discussion

A total of 201 students; 107 (53.2%) males and 94 (46.8%) participated in the study. Majority of the students, 63 (31.3%) were within the age bracket of 12-20 years; teenagers and adolescents. This vulnerable age group has an unstable sexual life with an attendant high risk of HIV infection.

This study showed that all the students have heard about HIV/AIDS (100%). This is consistent with the findings of the National AID/STI and Reproductive Health Survey (NARHS) which revealed that 96% and 95.7% respectively [5,12].

Only 180 (89.6%) of the students got the meaning of the acronym HIV/AIDS. This disagrees with the findings of Anochie and Ikpeme among secondary school students in Port Harcourt where 47.6% was reported.13 This difference may have been due to the relatively low

awareness campaign with the consequent poor knowledge of HIV at that time, about a decade prior to this study.

A total of 157 (78.1%) of the students knew that virus is the aetiological agent of HIV/AIDS, 44 (21.89%) gave an incorrect response. The result does not agree with the findings of Oyo- Ita et al. in Calabar Nigeria were only 32.2% of the respondents knew the etiologic agent.14 This may also reflect the intensity of awareness campaign program in the past 5-10 years. The commonest mode of transmission mentioned was blood transfusion 90 (44.8%) followed by sexual intercourse (40.41%).

This does not agree with the finding of Oyo-Ita in Calabar in which sexual intercourse was mentioned as the commonest mode of transmission of the disease [9]. The choice of sexual intercourse as the commonest mode of transmission as found by Oyo-Ita et al may be due to increase sexual activities in that part of the country. Erroneous modes of transmission mentioned were mosquito bites and drinking of dirty water. This agrees with the findings of Oyo-Ita where mosquito bites, evil spirit and handshakes with HIV/AIDS patients were identified as the modes of transmission of the disease [2]. A reflection of poor knowledge of HIV infection among rural secondary school students in addition to the fact that it was only 182 (90.5%), who said that HIV/AIDS affects everybody. Those who said HIV/AIDS affects whites, adults and blacks were 3, 18 and 4 respectively, a reflection of poor knowledge of HIV infection.

Only 160 (79.6%) of the students said HIV/AIDS is preventable and the mostly identified effective way of preventing HIV/AIDS transmission was sexual abstinence (36.8%) followed by condom use (20.4%). Other identified modes of prevention of the disease mentioned were avoiding casual sex (22.4%), avoiding sex with commercial sex workers (5.5%) and being faithful to a faithful partner 10.9%. The preventive measures listed by the students were correct but the proportions still show a poor knowledge and practice by the students. This disagrees with the findings of Oyo-itta et al. in Calabar Nigeria, whereas only 48.4% knew that HIV/AIDS can be prevented by sexual abstinence [9]. Some of the students do not believe that HIV/AIDS exists and hence no association of HIV/AIDS infection to any preventive measures. This may possibly be an indicator suggesting

poor enlightenment campaign among the rural secondary school students in the face of presumably high level of ongoing national enlightenment campaign program on HIV infection. This shows that sexually active students were 85 (42.3%), 46 (54.1%) males and 39 females. Some of the sexually active respondents had their first experience before 10 years and more males 7 (70%) than the females 3 (30%) were sexually active at this tender age. The high percentage of male may be because the male child is more adventurous than their female counterparts. The major sources of HIV/AIDS information of the students was friends/school mates 36.8%. Other sources of information were mass media 25.4%, school 20.9%, church 8.5% and parents 8.9%. Friends as the main source of information disagree with the findings of Oyo-itta et al. in calabar in which mass media were their main source of information [9]. The difference observed may be due to poor access to television. Even when the students have access to television, inconsistent power supply in the village as well as students interest in films rather than Television programs may pose a limitation to television use. Friends as the major source of information can explain the misconception in the aetiology, mode of transmission and sexual practices of the students.

Parents as the list source of information also reflects the poor knowledge of the disease among parents as majority of them are farmers and petty traders. Low parent input is consistent with the finding of Oyo-itta, in which parents accounted for 2.2% source of information of the respondents [9]. Finally, 52.2% of the respondents would not care for HIV/AIDS patients because of the fear of contacting the infection. This attitude may have resulted from the poor knowledge of the mode of transmission of the disease considering "the uninformed friends" as the main source of information and may account for high level of stigmatization of HIV/AIDS patients in the community. This may have stained from the erroneous beliefs in the society. Many have heard but lack proper understanding of the illness hence poor practices and misconception. Due to poor knowledge, attitude and practice of HIV/AIDS, the mostly practiced preventive measure, among the sexually active students was condom, the erroneous preventive measures practiced were use of herbs, hot drinks and antibiotics.

It is therefore suggested that there is an urgent need for school based HIV/AIDS awareness program to improve the knowledge, attitude and practice of HIV/AIDS and its preventive measures among secondary

school students. Electronic and media houses should be encouraged to carry out more public enlightenment program on HIV/AIDS and to publicize correct and comprehensive information about the disease. The sexually active ones should go for laboratory tests to ascertain their HIV/AIDS status for necessary help. Trained peer health educators would also be of great help in the enlightenment campaign as untrained friends were the main sources of information to the respondents. Also, students should be encouraged to read literatures on HIV/AIDS.

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