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Knowledge about HIV/AIDS and sexual practice among University of Ibadan students

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Summary

This study assessed the knowledge about HIV/AIDS and sexual practice of University students in Ibadan, Nigeria. Two hundred and seventeen students from the University of Ibadan were randomly selected in 2001 from the College of Medicine, Faculties of Arts and Law and completed a questionnaire. The ages of the students ranged from 16-23 with a mean of 19.05 years; 98.2% of the students reported blood transfusion as a major route of transmission of HIV/AIDS. This was followed by use of unsterilized needle (97.2%) and unprotected sexual intercourse (93.5%). The heterosexual route of transmission was rated third. Sexual practice of the students showed 29% were sexually active. 91.2% considered HIV/AIDS a serious health problem. Ninety-two percent (92.6%) reported sticking to one uninfected partner as a means of prevention and 88% reported use of condom as preventive measure. However, only 16.6% of the total respondents claimed to have used condom with their partners within the last 3 months. Although they are knowledgeable about HIV/AIDS, many do not practice what they know. University of Ibadan students are sexually active and their under-rating of heterosexual route as a major route of transmission suggests the urgent need for an organized educational programme of HIV/AIDS prevention for the University students.

Keywords: Knowledge, HIV/AIDS, sexual practice, adolescents, university students

Résumé

Cette étude est pour savoir la connaissance de VIH/CIDA et l'entraînement sexuel des étudiants de l'Université d'Ibadan au Nigeria. Deux cents et dix-sept étudiants étaient sélectionnés des Facultés de Médecine, des lettres et de la Loi en 2001 et ils ont complété des questionnaires. Les âges des étudiants sont de 16-23 avec une moyenne de 19.05 ans; 98.2% des étudiants ont rapporté que la transfusion du sang comme un itinéraire majeur de transmission de VIH/CIDA, suivi par l'usage d'aiguille non-stérilisée (97.2%) et le rapport sexuel sans protection (93.5%). L'itinéraire hétérosexuel de transmission est le troisième. L'entraînement sexuel des étudiants a montré que 29% étaient sexuellement actifs. 91.2% ont considéré VIH/CIDA un problème de la santé très sérieux. Quatre-vingt-dix

- deux pour cent (92.6%) disaient que, rester avec un copain non-infecté comme un moyen de prévention et 88% préféraient l'usage de condom comme un moyen préventif. Cependant, seulement 16.6% des défenseurs totaux ont prétendu d'avoir utilisé le condom avec leurs partenaires dans 3 mois passés. Bien qu'ils soient bien informés au sujet de VIH/CIDA, plusieurs ne pratiquent pas ce qu'ils savent. Les étudiants sont sexuellement active et leur sous-estimation d'itinéraire hétérosexuel comme un itinéraire majeur de transmission suggère le besoin urgent d'organiser un programme pédagogique organisé de prévention du VIH/CIDA pour les étudiants de l'université.

Introduction

HIV/AIDS has emerged as a global health problem with enormous social, medical, economical and political implications. Despite recent development in drugs and vaccine, AIDS still remains incurable. A lot has been studied and written on the issue as a health puzzle of our time and there have been accounts of public panic due to HIV positivity [1]. The prevalence of HIV/AIDS has reached epidemic proportion, particularly in Sub-Saharan Africa which account for 70% of the global burden [2]. HIV prevalence in Nigeria is estimated at 5.8% in 2001 [2]. The country has experienced an exponential increase from 1.8% in 1991 to 5.8% in 2001. Between the year 1996 and 2001, 52,962 cases of HIV/AIDS were reported from health facilities in Nigeria. Everyday, 1,500 Nigerians are getting infected with HIV and it is projected that by the year 2015, 8.4 million Nigerians will be infected with HIV under this high prevalence scenario [2]. The principal mode of transmission is heterosexual intercourse [3]. Most studies on knowledge, attitude and behaviour of adolescents on HIV are from Europe and other African countries [4-7]. In Nigeria, many studies have been done among adolescents. For example, 55.1% of the 354 unmarried female students of University of Ibadan surveyed by Iwuagwu *et al* had had sexual intercourse [8]. The mean age at first intercourse was 16.5 years. Also, 60% of the young people surveyed by Makinwa-Adebusoye [9] in urban areas did not know that pregnancy was possible during the first intercourse. The same study showed that secondary school students averaged 11 points on a 33-point scale of reproductive health knowledge [10]. Yet, sexual debut for most young people in the country occurs during the teenage years [11-13]. In Nigeria, the mean age at first intercourse is 16 years for boys and 18 years for girls [14]. Jinadu and Odesanmi studied male adolescents aged 15 to 19 years and found

that 76% of the secondary school youths had been sexually active within the past 12 months, 5% with prostitutes and 56% with more than one partner, but only 8% had used a condom during that year [15]. Another survey of secondary school students, showed that only 36% of sexually active males and 21% of females were condom users [16]. Literature has shown that Nigerian youths lack adequate knowledge of AIDS [17]. Yet, the most recent sentinel survey indicated that the youth between ages 15 to 24 are at greatest risk. This study was designed to fill the gap in knowledge, attitude and practice and to explore any changes which may have occurred 10 years after a similar study was conducted among undergraduates in University of Ibadan [18].

The setting

The University of Ibadan is the premier University in Nigeria located in the south western region of Nigeria. It was founded in 1948 and currently has eleven faculties viz- Arts, Science, College of Medicine, Agriculture, Forestry, Social Sciences, Education, Veterinary Medicine, Law, Technology and Pharmacy. The student population in 2001 was about eighteen thousand (18,000). The campus covers over 103 hectares of land. HIV/AIDS activities or transmission in the University come as a result of so many factors of which social interaction among students is the central focus. Free visitation by both male and female students in their hostels which allows for free interaction and possibly increased sexual activities going on without restriction could form the core of HIV/AIDS in the Universities. Also "New Entry Rush" is another nature of campus life that promotes sexual activities. "New Entry Rush" is usually the period when new students are admitted into the University. During this period, men would want to go out with the pretty girls. In the evenings, cars are packed at female hostels and men from within and outside the campus come to pick girls to "sleep with" in exchange for money.

Materials and methods

The concept of individual and collective vulnerability and social theory of HIV/AIDS transmission were used as the conceptual frame work for the study. The study applied the concept to youths as a group likely to be at risk due to their behaviour since this may expose some of them to infection. Within this frame work, the evaluation of the group's attitude towards HIV/AIDS involved consideration of several factors that contribute to HIV infection e.g sex, multiple sexual partner, indiscriminate and multiple use of sharp instruments like needles, razor blades, ear piercing instruments etc. The social theory of HIV/AIDS transmission explains that African cultural system with regards to sexuality and reproduction tends to increase the number of sexual partners with emphasis on high fertility thereby increasing the likelihood of the transmission of gonorrhoea, syphilis and in the last decade AIDS [19]. As stated " the

African system is vulnerable to attack by all coital -related disorders' [20].

Recruitment /sampling procedure

Prior to visiting the selected lecture classes and administration of questionnaire, the investigator secured institutional approval from the faculties. Permission was also sought from the lecturers and the aim of the study was explained to the students. Respondents were selected by random sampling technique using the "lucky dip method" from the Faculties of Arts, Law and College of Medicine out of eleven faculties in the University. "Yes or NO" paper was shuffled and those who picked "Yes" in the lucky dip were included in the study. This selection was based on those who were purely in science based and art based discipline to make inter-group comparison more meaningful. Verbal informed consent of the respondents was obtained.

Instrument/questionnaire administration

A four paged questionnaire containing forty-four (44) items was designed and pretested in 2001 among the students of University of Ibadan (aged 15-30) before a final draft was administered to the participating students. The questionnaire included sections on (i) demographic characteristics (ii) knowledge on HIV/AIDS- causes, transmission, people at risk (iii), sexual practice and self perception of susceptibility to AIDS and (iv) Prevention. The questionnaire were administered to 220 students in the selected departments within a week's period. The questionnaires was self completed by the students. Out of the 220 questionnaire that were administered, 217 were completed and suitable for analysis using the Statistical Package for Social Sciences (SPSS)

Results

The ages of the students ranged from 16 to 23 with a mean of 19.5 years. The majority of the total respondents (24%) fall within age 22 and above. This was followed by age 20 (20.3%). The least reported age was 18 (0.5%). For gender, 61.8% are females while 37.8% are males. Religious distribution showed that Christians dominated in all the faculties (88.9%). The majority of the student respondents reside in the halls of residents within the University campus. Marital status showed that the majority of the students were single (85.7%).

Knowledge about HIV/AIDS

The majority of the students (93.1%) have heard of HIV/AIDS. On their source of information, Television, Radio and Journal were the most reported. Table 2 shows the student's knowledge on route of transmission of AIDS. The most widely reported ways of contracting AIDS are through blood transfusion (98.2%), injection using

Table 1: Demographic profile of University of Ibadan students.

Demographic variables	Medicine (n = 110)		Law (n = 55)		Arts (n = 52)		Total		P value
	No	%	No	%	No	%	No	%	
<i>Age (yrs)</i>									
16 - 17	7	6.3	5	9.1	4	7.7	16	7.4	0.04
18 - 19	7	6.4	11	20.0	5	9.6	23	10.6	
20 - 21	49	44.5	24	43.6	13	25	86	39.7	
22 and above	40	36.3	14	25.4	27	52.0	81	37.4	
<i>Sex:</i>									
Male	46	41.8	19	34.5	17	32.7	82	37.8	0.61
Female	63	57.3	36	65.5	35	67.3	134	61.8	
<i>Religion:</i>									
Christianity	98	89.1	49	89.1	46	88.5	193	88.9	0.61
Islam	11	10.0	3	5.5	4	7.7	18	8.3	
Traditional	0	0.0	2	3.6	2	3.8	4	1.8	
<i>Place of residence</i>									
Hall	73	66.4	23	41.8	21	40.4	117	53.0	0.42
Off campus	27	24.0	27	49.1	31	59.6	85	39.2	
<i>Marital status</i>									
Married	14	12.7	14	25.5	1	1.9	29	13.4	0.0014
Single	95	86.4	40	72.7	51	98.1	186	85.7	

Table 2: Student's knowledge on routes of AIDS transmission

Knowledge variables	Medicine		Law		Arts		Total		P.value
	No.	%	No	%	No	%	No	%	
<i>Sexual intercourse</i>									
without condom	103	93.6	52	92.7	49	94.2	203	93.5	0.9
Unsterilized needle	106	96.4	54	98.2	51	98.1	211	97.2	0.7
Blood transfusion	106	96.4	55	100	52	100	213	98.2	0.1
Use of blade at saloon	106	96.4	49	89.1	48	92.3	203	93.5	0.1
<i>Others</i>									
-kissing	33	30	12	21.8	2	23.1	57	26.3	0.4
-shaking hands	3	2.7	0	0.0	0	0.0	3	1.4	0.2

unsterilized needle (97.2%) while sexual intercourse without the use of condom and use of blade at the barbing saloon were reported by 93.5% of all the students. Others (Kissing, eating with AIDS patient) were scarcely reported and follows the same pattern in all the faculties. A high proportion of students (91.2%) who have heard of HIV/AIDS considered it a major health problem in Nigeria. This belief was shared by the majority of students in all the faculties. Those who considered it a health problem ranged from 89.1% in the College of Medicine, 90.4% in Faculties Arts to 96.4% in Law.

Table 3a and b show students knowledge on prevention of HIV/AIDS. The majority of respondents stated that people should avoid indiscriminate blood transfusion. Similarly, 88% of the respondents said that people should use condom during sexual intercourse. This view was shared

by the majority in the three faculties. A high proportion of the respondents (92.6%) stated that people should stick to one partner only. Avoiding indiscriminate use and re-use of injection needles, razor blades and skin piercing objects was mentioned by 89.4% of the respondents. This also appears in similar pattern in the three faculties.

Sexual practice

Twenty-nine percent (29%) of the entire students reported that they had ever had sex. The proportion of those with sexual experience ranged from 26.4% in Medicine, 26.9% in Arts to 36.4% in Law. Concerning frequency of sexual activities, seven (24.1%) reported to have had sex 1-2 times in Medicine compared to 4 (20%) in Law and 1 (7.1%) in Arts. However, while most of the students in Medicine (7.3%) claimed to have had intercourse more than 7 times,

Table 3a: Students' knowledge on prevention of HIV/AIDS

Prevention variables	Medicine		Law		Arts		Total		P. value
	No	%	No.	%	No.	%	No.	%	
<i>Avoid unscreened blood</i>									
Yes	95	86.4	43	78.2	47	90.4	185	85.3	0.00
No	6	5.5	12	21.8	5	9.6	23	10.6	
No response	9	8.2	0	0.0	0	0.0	9	4.1	
<i>Use condom</i>									
Yes	91	82.7	53	96.4	47	90.4	191	88.0	0.004
No	6	5.5	2	3.6	5	9.6	13	6.0	
No response	13	11.8	0	0.0	0	0.0	13	6.0	
<i>Stick to a partner</i>									
Yes	100	90.9	54	98.2	47	90.4	201	92.6	0.001
No	1	0.9	1	1.8	5	9.6	7	3.2	
No response	9	8.2	0	0.0	0	0.0	9	4.4	
<i>Avoid re-use of needles</i>									
Yes	96	87.3	53	96.4	45	86.5	194	89.4	0.006
No	5	4.5	2	3.6	7	13.5	14	6.5	
No response	9	8.2	0	0.0	0	0.0	9	4.1	

majority of those in Law claimed to have had about 3-4 times while most of those in Arts had between 5-7 times. There was statistically significant difference in the number of times students in the three faculties had intercourse. Only 16.6% of students claimed that they or their partner ever used condom.

Pattern of sexual behaviour of respondents by age, religion and place of residence

Comparison with sexual behaviour by age, religion place of residence and the use of condom showed that majority of students who have "ever had sex" is within the older age group 20-23(81%) while only 19% of those within age 16-19 have ever had sex. More Christians have ever had sex (90.5%). Of the total number of students who have

ever had sex, 58.7% reside in the hall while 41.3% are off campus. There is statistical significant difference in the

Table 3b: Distribution students' knowledge on cure of HIV/AIDS

Knowledge Variables	Medicine Freq. %	Law Freq. %	Arts Freq. %	Total Freq. %
AIDS can be cured by:				
Tablets	18 (16.4)	13 (23.6)	10 (19.2)	41 (18.9)
Traditional medicine	24 (21.8)	11 (20.0)	11 (21.2)	46 (21.2)
Injection	20 (18.2)	11 (20.0)	9 (17.3)	40 (18.4)
AIDS has no cure	85 (77.3)	37 (67.3)	38 (73.1)	160 (73.7)

Table 4: Sexual behaviour among University of Ibadan students

Sexual variable	Medicine		Law		Arts		Total		P. Value
	No	%	No	%	No	%	No.	%	
<i>Have had sex before:</i>									
Yes	29	26.4	20	36.4	14	26.9	63	29	0.63
No	56	50.9	29	52.7	30	57.7	115	53.0	
No response	25	22.7	6	10.9	8	20.5	39	18.0	
<i>Frequency of sex times (within last 3 months)</i>									
1-2 times	7	24.1	4	20.0	1	7.1	12	19.0	0.002
3-4 time	4	13.8	11	55.0	7	50.0	22	34.9	
5-7 times	4	13.8	10	50.0	8	57.1	22	34.9	
more than 7 times	8	7.3	1	5.0	0	0.0	9	14.3	
<i>Consistent use of condom with last 3 months</i>									
Yes	14	12.7	14	25.4	8	15.4	36	16.6	0.95
No	15	13.6	6	10.9	6	11.5	27	12.4	

place of residence and "ever had sex". However, there is no significant difference in the use of condom.

The older students used more condom than the younger ones and the Christians also used more condom. Increase in sexual activity has corresponding relation in the use of condom as those who were more involved in sexual activities used more condom. Again those who live on campus may have been the target of many programmes in the University which emphasize condom use for those who cannot abstain. The majority of students being Christians may explain the larger percentage involving in sexual activity. There is no statistical significant difference between the religion and "ever had sex".

Table 5a: Pattern of sexual behaviour of respondents by age, religion and place of residence.

Variable	Ever had sex				P. value
	Yes	%	No	%	
Age (yrs)					
16 - 19	12	19	29	18.8	0.971
20 - 23	51	81	125	81.2	
Total	63		154		
Religion					
Christianity	57	90.5	138	89.7	0.976
Islam	5	7.9	13	8.4	
Others	1	1.6	3	1.9	
	63				
Place of Residence					
Hall	21	58.3	65	42.2	0.027
Off campus	15	41.7	89	57.8	
	63		154		

Table 5b: Use of condom by respondents by age, religion and place of residence

Variable	Use of condom				P. value
	Yes	%	No	%	
Age					
16 - 19	7	19.4	34	18.8	0.926
20 - 23	29	80.6	147	81.2	
	36		181		
Religion					
Christianity	32	88.9	163	90.1	0.923
Islam	3	8.3	15	8.3	
Others	1	2.8	3	1.7	
	36		181		
Place of residence					
Hall	21	58.3	104	57.5	0.923
Off campus	15	41.7	77	42.5	

Discussion

The students of University of Ibadan have good knowledge about HIV/AIDS. About ninety-three percent (93.1%) of the total population have heard about HIV/AIDS. Sur-

prisingly, the proportion of students who have knowledge of HIV/AIDS is higher in the Faculty of Arts (96.2%) than in College of Medicine (90.9%) and Faculty of Law (94.5%). One would expect that the medical students would have more knowledge of HIV/AIDS than their counter-parts in Arts and Law for at least being in the health sciences. It is expected that they would be more interested in matters relating to health such as HIV/AIDS. However, that expectation was not justified. This goes further to show that research findings should not be based on "assumptions". There is a world of difference between "is and ought to be". Although, the students have good knowledge of AIDS, more educative programme is needed on the ways by which AIDS can be contracted. This is because, the most reported way of contraction by the students is through receiving blood transfusion (97.2%) while having sexual intercourse without condom and use of blade at the salon were reported by 93.5% of the students. This means that the most important aspect that may endanger them as regards contracting HIV/AIDS has somehow been under-rated. On their source of information, television, radio, journal were the most reported sources. This is similar to the report of Oladepo and Brieger which showed radio, T.V, journals, magazines as their sources of information. It means that the sources of information about HIV/AIDS have not changed within the past decade [18].

Despite relatively high level of knowledge of HIV/AIDS, the students surveyed held several misconceptions about AIDS. For example, some believed that AIDS can be cured by traditional medicine (21.2%) while others (18.9%) and (18.4%) think that tablets supplied by doctors and injections by experts can cure AIDS respectively. This belief was the same in all the three faculties. Other investigators have reported similar misconceptions [21]. Adequate health education need to be given to this target group to influence their sexual attitude and behaviour. For the fact that some students think that AIDS can be cured by traditional medicine and tablets despite public awareness on T.V, radio, etc calls for concern.

This will influence their sexual behaviour and other risk actions of such students. Students are supposed to be the most informed group of people in Nigeria. This confirms the result of Orubuloye (1992) that Nigerian youths lack adequate knowledge of AIDS. Meaningful strategies that focus on modifying risk behaviour have to be put into place, and this points to increasing knowledge as a pre-requisite for changing such risky behaviours. Also in this study, a high proportion of students consider AIDS as a serious health problem in Nigeria. This belief was the same in all the faculties and this is at variance with Oladepo and Brieger's finding in 1994 which showed that many students did not feel AIDS is a serious problem. This perhaps is because HIV/AIDS has remained top in the agenda in public discussions in the media.

Sexual behaviour

Only 29% of the students reported having sex. This figure is lower than 45% reported by Oladepo(1994) and Stella Iwuagwu(2000). This low response on sexual practice makes it difficult to assess the sexual behaviour of these students as regards the subject matter – HIV/AIDS. This could be under-reporting or genuine reduction in sexual activities in this population. However, majority of students who have “ever had sex” is within the older age group 20 – 23(81%) while only 19% of those within age 16-19 have ever had sex. More Christians have ever had sex (90.5%). Of the total number of students who have ever had sex, 58.7% reside in the hall while 41.3% are off campus. There is statistical significant difference in the place of residence and “ever had sex”. However, there is no significant difference in the use of condom. The older students used more condom than the younger ones and the Christians also used more condom. Increase in sexual activity has corresponding relation in the use of condom as those who were more involved in sexual activities used more condom. Again those who live on campus may have been the target of many programmes in the University which emphasize condom use for those who cannot abstain. The majority of students being Christians may explain the larger percentage involving in sexual activity. There is no statistical significant difference between the religion and “ever had sex”

Furthermore, those that responded show a very negative sexual practice. This underscores the health education principle that knowledge alone is not enough to change behaviour. This study supports the findings of Oladepo and Brieger (1994) among the University of Ibadan students that although they have good knowledge of AIDS, many do not practice what they know. It is also true that many students are highly aware of preventive measures, just few have changed their sexual behaviour since they knew about HIV. Only 16.6% of students claimed that they and their partners have used condom. This is of great concern as it constitutes an unacceptable level of negative behaviour and attitude to a disease that is usually fatal. This means that knowing about AIDS does not deter people from engaging in sexual intercourse. Oladepo and Brieger's findings of (1994) indicated that 58.7% of the subject knew that AIDS is caused by a virus but 72.6% thought the disease could be spread through kissing, hugging, shaking hands and 48% believe they cannot have AIDS. In contrast, this study showed a very high level of knowledge of University of Ibadan students about HIV/AIDS although there is no differential in practice to sex. This should be a very important area for social scientists for more research to find out the time lag between knowledge and behavioural change. Also the low level of knowledge of clinical students about HIV/AIDS as compared with the students in Law and Arts calls for concern as one would expect them to have more knowledge about HIV/AIDS than their counterparts in Law and Arts for at least being in the sciences. It is expected that they would be

more interested in matters relating to health such as HIV/AIDS. However, that expectation was not justified. This shows that research findings should not be based on “assumption”.

Limitation of the findings

There are two limitations to this study- one is that the sample size is relatively small, therefore, the findings may not be generalizable to the entire student population. Secondly, because data on sexual behaviour are self-reported, they are not verifiable. It is likely that students in this survey under-reported their sexual activities.

Conclusion

AIDS poses a major public health problem in Nigeria. HIV/AIDS represents the most serious threat to this century in the field of communicable diseases because of its unique features [22]. There is evidence of rising level of the infection in the country and the heterosexual route remains the major route of transmission. Although they have good knowledge of HIV/AIDS, there is no change in that behaviour. This puts them at a high risk. This should be a very important area for social scientist for more research to find out the time lag between knowledge and behavioural change. Support by the University officials, students representatives, ministries of education and health, as well as non-governmental organizations, and individual will be needed to achieve a successful preventive HIV/AIDS programme. HIV/AIDS preventive programme should be integrated into the existing University curriculum.

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