

Sexual behavior of medical students: A single institutional survey

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Abstract

Objective: We investigated the sexual practices of medical students as they are positioned to serve as peer educators in the fight against HIV/AIDS.

Methods: This was a cross sectional study, where self-administered questionnaires were distributed to consenting 4th to 6th year medical students in Jos, Nigeria with a view of elucidating information regarding sexual practices and condom utilization. Safe sex practice was defined as the use of condoms and being in a monogamous relationship.

Results: Of a total of 400 questionnaires distributed, 365 respondents (249 males and 116 females) had adequate data for analysis. A large proportion (62%) of our students have never had sex before and less than 30% of them are sexually active. Only 6.1% had multiple sexual partners and homosexuality was uncommon (1.9%). Condom utilization amongst the sexually active was high (65%) and similar among male and female students (71.3% vs. 51.9% respectively, $p = 0.08$).

Conclusion: There exists safe sexual practice among medical students in our setting. This group could be recruited as peer educators in the war against HIV/AIDS.

Key Words: HIV/AIDS, Students, Sexual behaviour, Condom use

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Introduction

Infection with the human immunodeficiency virus (HIV) is a global pandemic. Sub-Saharan Africa has approximately 10% of the world's population but it is home to 70% of all the persons living with HIV infection/ the acquired immunodeficiency syndrome (AIDS)¹. Nigeria with a HIV seroprevalence of 4.4% accounts for the second largest population of people living with HIV/AIDS (PLWHA) worldwide². The commonest route of infection in the developing world is heterosexual intercourse¹.

This pandemic commonly affects the age group 15 to 29 years. This is largely due to the early age of onset of sexual activity, ignorance of preventive measures and poverty³⁻⁵. In attempts to curb the menace of this illness, abstinence, faithfulness and the use of condoms, have been adopted². Enlightenment of the population of the effectiveness of these measures forms the bed rock of prevention of HIV/AIDS in the community. Furtherance is the use of peer educators in the prevention of HIV/

AIDS among young people. ⁶ Peer education is anchored on the premise that many people make changes based on the opinions and actions of their close and trusted peers. Peer educators are typically the same age or slightly older than the group with whom they are working. The opportunity to serve as peer educator provides a platform for young people to develop their leadership skills, and consolidate their own knowledge base and skills resulting in behavioural change.

In spite of these preventive measures, HIV/AIDS has continued to spread. There exists a disparity between the knowledge of these preventive measures and practices among young people. In Ethiopia, only 37.1% of sexually active medical science students reported ever use of condom⁷. A similar finding has been observed in Brazil where the proportion of university students who still practice unsafe sex is considerable and being a student in a health science EI course does not ensure safe sexual behaviour⁸.

In Nigeria, The literature is replete with the sexual behaviour of secondary school students but little is known about the behaviour of medical students in Nigeria^{3,4,9,10}. We hypothesize in this paper that the sexual behaviour of medical students is safe and therefore they could serve as peer educators in the prevention of HIV/AIDS.

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Methods

This was a cross-sectional study designed to assess the sexual behavior of clinical medical students at the University of Jos, north central Nigeria. The study was carried out between August and October 2008.

Study subjects

A minimum sample size of 358 subjects was calculated using the formula for cross-sectional surveys: $N = (z_{1-\alpha})^2(p)(1-p)/\alpha^2$

Where N = minimum sample size

$(z_{1-\alpha})^2$ = constant at 95% confidence interval (1.96)

P = proportion of sexually active medical subjects (62.9%) who never used condom from the literature⁶

α = precision allowed

Data collection

Self-administered questionnaires were distributed to randomly selected 4th to 6th year clinical medical students after a pilot study. The questionnaire used in the study was an adapted version of World Health Organization/ Global AIDS Program used previously in West Africa.¹⁰ Information sought from the subjects included socio-demographic factors, knowledge about HIV/AIDS, high-risk behavior like sexual contact with commercial sex workers or non-regular partners, history of sexually transmissible infections in the past 12 months and condom use. Safe sex practice was defined as the use of condoms and being in a monogamous relationship. Perceived risk of HIV infection (defined as the respondent's rating of his/her chances of acquiring HIV infection) was graded as none/small, moderate and high.

Ethical consideration

The ethics committee of the Jos university teaching hospital approved the study. Participation was voluntary and informed consent was obtained from the students. Confidentiality was maintained and anonymity of responses ensured. Data was kept secure and made available only to the data analyst.

Statistical analysis

Data was analysed using the Epi Info 2004 Statistical program. Means (SD) and proportions used to describe continuous and categorical variables respectively. The Chi-squared test was used to compare observed differences (proportions). A p value of <0.05 was considered statistically significant.

Results

Characteristics of study subjects

Of a total of 400 questionnaires distributed, 365 respondents (249 males and 116 females) had adequate data for analysis. The mean age of the students was 24 ± 2 years. One hundred and thirty nine (38%) has ever had sex while 99 (27.1%) were sexually active within the last 12 months. Of those who admitted to having had sex before, 71.9% did so at age 17 years and above (Table 1). The age at sexual debut was similar for males and females being 17.0 ± 2.80 and 17.1 ± 1.2 years respectively; $p = 0.37$. Fourteen (3.9%) of the students cohabited with a person they were not married to. Four (1.1%) of the students has had a sexually transmissible infection and 2.4%, a genital ulcer in the last 12 months.

Table 1: Sexual behavior of medical students in Jos, Nigeria

Characteristics	
Number (M/F)	249/116
Age (mean \pm SD), yrs	24 ± 2
Ever had sex before, n (%)	139 (38)
Sexually active in the last 12 months, % (n=349)	99 (28.4)
Ever talked with sexually active about HIV prevention % (n=127)	
Yes	71.6
No	28.3
Age (yrs) at first sexual experience (%)	
8-10	10.1
11-13	5
14-16	12.9
17 and above	71.9
Perceived risk of HIV acquisition, % (n=354)	
None/Small	82.2
Moderate	8.5
High	1.7
Don't know	7.6
Risk factors for HIV acquisition, % (n=365)	
Multiple sexual partners	6.1
Sex with commercial sex workers	1.9
Blood transfusion	1.9
Homosexual contact	1.9
Needle stick injuries	9.3
Used condom during first sexual experience, % (n=117)	
Yes	31.6
No	68.4

continuation of table 1

Characteristics	
Person with whom first sexual experience was with, % (n=139)	
Boy/girl friend	75.2
Casual partner	18
Wife/Husband	1.5
Commercial sex worker	1.5
Other	3.8
Used condom during the last sexual intercourse, % (n=109)	
Yes	65.1
No	34.9
Person with whom last sexual experience was with, % (n=105)	
Boy/girl friend	77.1
Casual partner	11.4
Wife/Husband	6.7
Commercial sex worker	1.0
Other	3.8

Risk factors for HIV

Table 1 shows the perceived risk for HIV acquisition. The majority of the students (82.2%) rated their risk as either none or small. The commonest risk factors for HIV acquisition were accidental needle stick injuries (9.3%) and multiple sexual partners (6.1%). Homosexual contact was uncommon (1.9%) while intravenous drug abuse was nonexistent.

Condom use

Nearly a third (31.6%) of the students used condoms at the first sexual experience while 65.1% used condoms during their last sexual intercourse. Condom use was similar among male and female students (71.3% vs. 51.9% respectively; $\chi^2 = 3.14$, $p=0.08$).

Non-availability of condoms accounted for 25.7% of the reasons why a condom was not used at the last sexual encounter (Table 2). Other reasons included reduced sexual pleasure with condom use, resistance from sexual partner and religious beliefs that prohibit condom use. Cost of condom and “no particular reason” accounted for 8.6% each.

Table 2: Reasons why condom was not used at the last sexual experience, (n = 35)

Reasons	%
Non-availability	25.7
Reduces sexual pleasure	22.9

continuation of table 2

Reasons	%
Resistance from sexual partner	14.3
Religious doctrine	11.4
Reduces confidence/ trust	8.6
Cost	8.6
None	8.6

Discussion

This study shows that the sexual behavior of medical students in this study is safe. A large proportion (62%) of our students has never had sex before and less than 30% of them are sexually active. Furthermore, condom utilization amongst the sexually active is high (65%). Additionally, most of them are in monogamous relationships as only 6.1% have multiple sexual partners. High risk behaviors such as involvement with commercial sex workers and homosexuality are uncommon (3.8%). Abstinence and condom use form the mainstay of preventive measures against HIV/AIDS. This shows the potential of the medical students as peer educators in the prevention of HIV/AIDS.

The majority of the students (71.9%) that have had sex had their first sexual encounter at age 17 years and above. This is comparable to the reports of sexual debuts from Europe, Australia and Malaysia¹²⁻¹⁶. There are no studies among students of tertiary institutions in Nigeria to compare our findings with. However, our finding contrasts the reports among secondary school students from other parts of Nigeria where age at sexual debut is between 11 and 15 years^{3, 10, 17, 18}. This difference in age of sexual debut could be attributed to the rigors of academic pursuit and the preoccupation by the need to excel. Our students delay sexual initiation till much later when they are more matured to make informed choices. This attribute of the students positions them adequately to serve as peer educators.

The reasons why condoms are sometimes not used are attributable to factors that can be addressed and thereby improve condom utilization among this age group. Issues of availability and acceptability of condoms can be effectively handled by better distribution mechanism and education.

Our study was not without limitations. This study relied wholly on self-reports of sexual behavior and thus the possibility of under-reporting is high as “talking about sex” is still a taboo in our culture. However, the self-administered nature of the questionnaires and the anonymity ensured a high

degree of confidentiality. Secondly, the study was not designed to elucidate the correctness of condom use. However, peer educators are not necessarily perfect and have opportunity to improve their skills while mentoring others ⁶. Another limitation that would limit the generalization of our findings is the fact that the study was a single institutional survey. More surveys of this nature should be carried out in other universities.

Acknowledgement

We wish to thank the medical students of the University of Jos for participating in the survey.

Conclusion

In conclusion this study showed that there exists safe sexual practice among medical students in our setting. This group could be recruited as peer educators in the war against HIV/AIDS.

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