

## Short Communication

# Gender differences in student's knowledge of HIV/AIDS in the Niger Delta, Nigeria

H. A. A. Ugboma<sup>1\*</sup>, M. E. Kooffreh<sup>2</sup> and C. A. Nwauche<sup>3</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, University of Port Harcourt, Rivers State Nigeria.

<sup>2</sup>Department of Genetics and Biotechnology, University of Calabar, Cross River State Nigeria.

<sup>3</sup>Department of Haematology, University of Port Harcourt Teaching Hospital, Rivers State Nigeria.

Accepted 2 September, 2010.

**HIV/AIDS, a disease first mentioned in 1981 has remained the most stigmatized illness especially in sub Saharan Africa. To assess the knowledge and effect of the large pool of information on HIV/AIDS in the lives of teenagers. A total of 1748 male and female students aged 15 to 19 years in 12 secondary schools in Port Harcourt and Calabar randomly selected were used for this study between May and December 2009. A self administered questionnaire comprising 18 multiple choice questions was developed for the study. Among the 1748 participants general knowledge on HIV/AIDS was high (79.9%). Less than 15% acknowledge its presence in semen and vaginal secretions though a greater than 74% believe HIV/AIDS is transmitted through sex. Condom use is low (15.7% females and 33.3% males). More girls (56.4%) prefer to abstain from sex until marriage than boys (34.9%). Only 38% agreed to voluntary HIV testing. Only 37.8% females and 26.2% males would support and care for friends and relations who are HIV-positive, would not spread the infection and would seek medical advice for themselves if infected. Information on HIV/AIDS should be encouraged. The youths should be targeted. This will reduce the prevalence.**

**Key words:** HIV/AIDS, gender differences, students, Niger Delta, Nigeria.

## INTRODUCTION

HIV/AIDS is and will continue to be a critical public health issue in Africa until such a time those preventive effects become effective and a vaccine is developed. Global estimates of people living with HIV/AIDS in 2007 was 33 million and 67% of them were in sub-Saharan Africa (UNAIDS/WHO, 2007).

The WHO report of 2002 revealed that the disease was the leading cause of death in Africa and the cause of one fifth of all the continent's death. (UNAIDS/WHO, 2002). The 2008 UNAIDS report show that sub Saharan Africa accounted for 75% of all deaths due to AIDS in 2007 (UNAIDS/WHO, 2008). In sub-Saharan Africa, approximately 1.9 million new infections and 1.5 million deaths occurred in 2007 (UNAIDS/WHO, 2008). Ten million young people (aged 15-24) and almost 3 million children under 15 were living with HIV (UNAIDS/WHO, 2002). Median HIV prevalence in Nigeria increased from 1.8% in 1991 to 5.8% in 2001 and down to 5.0% in 2003

and 4.4% in 2006 (Federal Ministry of Health, 2005).

There had been a lot of information over the radio and television on HIV/AIDS. The governments of Rivers and Cross Rivers States including the Federal Ministry of Health had gone as far as producing "little books" on general knowledge on HIV/AIDS, which is sold in most if not all secondary schools (UNAIDS/WHO, 2008). It is therefore expected that knowledge and prevention of HIV/AIDS in schools should be very high. In most countries, (Western and sub-Saharan African countries) the HIV epidemic is driven by behaviours (e.g. multiple sex partners, injecting drug use) that expose individuals to the risk of infection (Onwujekwe et al., 2000). Information on knowledge and on the level and intensity of risk behaviours related to HIV/AIDS is essential in identifying youths most at risk for HIV infection. It gives a better understanding of the dynamics of the epidemic and in assessing changes over time as a result of prevention efforts (Adebajo et al., 2002). It is useful to find out how much awareness these young people have concerning HIV/AIDS and how this information has affected their sexuality to allow effective interventions among them.

\*Corresponding author. E-mail: [haugboma@yahoo.co.uk](mailto:haugboma@yahoo.co.uk)

**Table 1.** Knowledge of HIV/AIDS problems

Knowledgeable on HIV/AIDS	Females	Males	Total
Yes	596 (80.5%)	800 (79.4%)	1,396 (79.9%)
No	144 (19.5)	208 (20.6%)	352 (20.1%)
Total	740 (100%)	1,008(100%)	1,748 (100%)

**Table 2.** Impact of knowledge of HIV/AIDS on sexual behavior.

Impacted on sexual behaviour	Female	Male	Total
Yes	267 (15.27%)	444 (25.40%)	711 (40.67%)
No	341 (19.51%)	440 (25.17%)	781 (44.68%)
No comment	132 (7.55%)	124 (7.10%)	256 (14.65%)
Total	740 (42.33%)	1,008 (57.67%)	1,748 (100%)

Ankrah (1996) observed that youths in sub-Saharan Africa constitute 35% of all HIV/AIDS cases. She observed that adolescents are at a high risk of contracting HIV/AIDS because of socio-cultural pressures, physical development, behavioural factors including early initiation into sexual activity (Nwokocha and Nwakoby, 2002). The risk was exacerbated by short term relationships, frequent partner changes, multiple partners, low rate of condom use and negative attitudes (Nwokocha and Nwakoby, 2002; Onwujekwe et al., 2000).

The main objective of this study is to assess how much this large pool of information on HIV/AIDS has affected the lives of these youths in terms of how they understand and appreciate the HIV/AIDS problem, and if it has changed their sexual behaviour or not.

## METHODOLOGY

A self administered questionnaire in English Language comprising 18 multiple choice questions was developed for the study. A total of twelve secondary schools six in Port Harcourt and six in Calabar randomly selected were used for the study made up of 1748 male and female students, aged 15 to 19 years. The study was done between May 2009 and December 2009. The principals of the schools were informed about the study and their consent obtained. Ethics approval was also obtained from the Universities of Port Harcourt and Calabar. The parents gave informed consent. After the students answered the questions, a talk was given to highlight important areas of the questionnaire and the correct answers to the questions in the questionnaire. The questions include:

1. What is HIV/AIDS?
2. What causes HIV/AIDS?
3. What it means to be HIV infected and to be an AIDS patient?
4. Where HIV is found and how it is transmitted?
5. How to prevent the spread of HIV/AIDS and the signs and symptoms of HIV/AIDS infection?
6. How AIDS can be treated since there is no cure?
7. What are STIs and examples of STI and if STIs increases the chances of HIV?

8. The children were asked if they had ever used a condom and if their knowledge of HIV/STIs has affected their sexual behaviour?

9. They were also asked as youths which option of sexual behaviour was suitable for them?

10. If they had ever been screened for HIV and if they would want to be screened for HIV?

11. If they had an HIV-positive result what their reaction would be, first for themselves, their friends and their families?

## Data analysis

The statistical package used for the analysis was SPSS. 16. A chi square test for independence was used to test for significant difference.

## RESULTS

A total of 1748 males (1008) and females (740) participated in this study. They were aged 15-19 years. The result indicates that 79.9% of the students sampled understand and appreciate HIV/AIDS problems while 20.1% did not. There was no statistical difference between the genders at  $p < 0.05$  on knowledge of HIV/AIDS problems (Table 1). A test of independence was conducted using the chi-squared statistic to ascertain whether a relationship exists between the perception of HIV/AIDS and sexual behaviour. There was no statistical difference between the genders at  $p < 0.05$ ,  $df=2$  (Table 2).

## DISCUSSION

The spread of HIV affect different geographical area and population sub-groups in different ways and at different times based on the information available to them and their knowledge of HIV/AIDS. Therefore, a study on the knowledge available to the people cannot be emphasized. This is achieved through surveillance which gives information on who is at risk and which behaviour

puts them at risk (Adebajo et al., 2002; Pattulo et al., 1994; Merakou et al., 2002). Among the 1748 adolescents who took part in this study, general knowledge on HIV/AIDS was very high (Table 1). While more than 90% acknowledge its presence in blood, less than 15% knew it could be present in semen and vaginal secretions. However, a good number know that HIV can be transmitted through sex.

This is not different from studies done in other places (Onwujekwe et al., 2000). It goes to show there is much information on HIV/AIDS to the public but a deep understanding of it is not yet satisfactory. Few of our study respondents were able to identify some signs and symptoms of AIDS. In our society, people who die of AIDS are not declared in public for fear of stigmatization. Only close friends and relative actually know the cause of death. Even when AIDS is the cause of death, some other explanation is given as the cause of death. Most of these youths have not actually seen an AIDS patient. The AIDS intervention programmes have so far achieved success in establishing a link between sexually transmitted infections and AIDS (Temin et al., 1999). This is seen in the high percentage that have heard about sexually transmitted infections and who believe it increases the rate of transmission of HIV. Though condom use is very low, as frequently seen in other studies (Ugboma and Nwauche, 2007) yet, many of them believe their knowledge about HIV/AIDS has affected their sexual behavior (Table 2). More girls than boys prefer to abstain from sex until marriage, as a result of socio-cultural belief in our region where females are expected to remain virgins until they marry. However, the same may not apply for the males. However, more males use condoms than the females. This is because the decision to use condom or not is usually done by the males. It will take more education, abolishing of some cultural beliefs and empowerment of the female to narrow the gap. About 38% of the adolescents agreed to voluntary HIV testing. Many persons in our society do not want to know their HIV status. Stigma and discrimination remains the most potent barrier to testing, treatment and prevention (KAISER DAILY, 2004), this is not good for control of spread.

People who are HIV positive and don't know their status may be spreading the disease unwittingly. However, some of the participants would rather spread the disease to other persons than suffer it alone. This may be due to the stigma and shame attached to this. They would rather that they do not carry the burden alone. Only few of the participants would support and care for friends and relations who were HIV positive. Adequate information and removal of stigma would improve this. This may also reduce the number that may react negatively if they themselves are infected as shown in our study.

Youth and gender friendly governments, and non governmental institutions can establish centers to

increase the perception of risk to those behaviours that will lead to contacting HIV/AIDS. This will help these adolescents develop appropriate attitude and behaviour (UNAIDS, 2004; KAISER DAILY, 2004).

## Conclusion

The control of HIV/AIDS has to do with information on the disease available to the people. In this study, the students' general knowledge on HIV/AIDS is good though detailed knowledge is poor. There is also a relationship between their behavior and their knowledge though many others did not find this in earlier studies. Both males and females have positive and healthy attitudes towards the control of HIV/AIDS. Evidence has shown that when serious and sustained prevention efforts are targeted towards the youths, the HIV rate decline (UNAIDS 2004).

## ACKNOWLEDGEMENTS

We acknowledge the immense assistance rendered to us by the school authorities and the parents of these students in giving consent for this study.

## REFERENCES

- Adebajo SR, Mafeni J, Moreland S, Marray N (2002). Knowledge, attitudes, sexual behaviour among the Nigerian Military concerning HIV/AIDS and STDs. Tech. Report, pp. 3-5.
- Ankrah EM (1996). Adolescents: HIV and AIDS in Sub-Sahara Africa (Unpublished) presented at a workshop on Adolescent Reproductive Health in sub-Saharan Africa. The Centre for Development and Population Activities (CEDPA), p. 18.
- Federal Ministry of Health/National Action Committee on AIDS (2005). National HIV seroprevalence sentinel survey. Abuja Federal Ministry of Health and National Action Committee on AIDS, Tech. Report, 2006: 7-11.
- KAISER DAILY HIV/AIDS Report (2004): HIV prevalence in Uganda drops 70% since early 1990s because of public HIV/AIDS Prevention Campaign. Kaisernetwork.org.
- Merakou K, Costopoulos C, Marcopoulou J, Kourekremastinnni J (2002). Knowledge, attitude and behaviour after 15 years of HIV/AIDS prevention in schools. Eur. J. Public Health, 12(2): 90-93.
- Nwokocho AR, Nwakoby BA (2002). Knowledge, attitude and behaviour of secondary (High) school students concerning HIV/AIDS in Enugu, Nigeria in the year 2000. J. Pediatr. Adolesc. Gynecol., 15(2): 93-96.
- Onwujekwe DI, Idigbe E, Ibrahim MM (2000). The epidemiology of HIV in Nigeria: Changing trends and new challenges. Niger. Int. Conf. AIDS, p. 13.
- Pattulo AI, Malonza M, Kimani GG, Muthee A (1994). Survey of knowledge, behaviour and attitudes relating to HIV infection and AIDS among Kenyan secondary school students.
- Temin MJ, Okonofua FE, Omorodion FO, Renne EP, Coplan P(1999). Perception of sexual behaviour and knowledge about sexually transmitted disease among adolescents in Benin City, Nigeria. Int. Fam. Plann. Perspect., 25(4): 186-190.
- Ugboma HAA, Nwauche CA (2007). Condom use amongst oil workers in the Niger Delta region of Nigeria-Port Harcourt. Med. J., 2: 41-44.
- UNAIDS/WHO AIDS Epidemic Update: 2002.
- UNAIDS (2004) HIV and young people, the threat for today's youth. 2004 global report on the global AIDS epidemic, pp. 93-98.
- UNAIDS/WHO AIDS Epidemic Update: 2008.
- UNAIDS/WHO AIDS Epidemic Update: 2007.