Research Paper

KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS (STIs) INCLUDING HIV/AIDS AMONG UNIVERSITY STUDENTS

Abstract

This study assessed the knowledge of undergraduates from University of Abuja about STIs including HIV/AIDS. Questionnaire were used to collect data on their knowledge of STIs, sources of knowledge, types of STIs, transmission routes, symptoms and the preventive measures available. Stratified random sampling procedure was employed in the collection of data and simple descriptive statistics as well as charts were used for the analyses and presentation of results. Results of the study revealed a generally high level of knowledge of STIs and HIV/AIDS among the students (87.4% and 90.7% respectively); it also revealed that television (82%) followed by school education(81.5%), magazines(74.4%) and friends(74.2%) are the highest sources of knowledge of STIs including HIV/AIDS among the students. The study showed that Gonorrhoea (89.3%) and Syphilis (81.2%) were the most known types of STIs among the respondents; it also revealed a high knowledge of the transmission routes of STIs including HIV/AIDS especially sexual intercourse(93.5%), blood transfusion(90.7%), sharing sharp objects(83.7%) and mother to unborn child(77.8%). The study also showed high knowledge of the symptoms of HIV/AIDS among the respondents especially weight loss(84.3%), followed by fever off and on(74.4%) and itchy skin rash(68.3%); it equally showed that the most commonly known preventive measures among the respondents are use of condom(88.2%), abstinence(86%) and faithful to one uninfected partner(79.8%). The study therefore concluded that the numerous intervention measures were making positive impacts on awareness creation among the students and recommended that further studies should be carried out to determine the impact of this knowledge on their sexual behaviour. Secondly, that the avenues for sensitization of the public regarding STIs including HIV/AIDS should be increased to further enhance the awareness of the general public.

Keywords: Adolescents, Knowledge, HIV/AIDS, STIs, Symptoms, Prevention

---

Introduction

Adolescents, defined by World Health Organization as persons between 10 and 19 years of age, constitute about 20% of the world's population (WHO, 2004). In Nigeria, as in other parts of the world, adolescents constitute a significant proportion of the population. Estimation from the 1991 census indicates that adolescents and young adults, aged between 15-24 years account for approximately 20.4% of the Nigerian population (NPC, 1991).

Studies also revealed that over 90% of adolescents and young adults have become sexually active by the age of 20years in Nigeria, with a large proportion of these occurring with casual and non- conjugal relationships, thereby increasing their vulnerability to several sexual and reproductive problems (Onwuezobe, 2005). Emerging data about the high incidence of sexual activity among adolescents suggest that factors that influence this include, socio-economic deprivations, parental inadequacies, peer pressure, effects of cultural changes and modernization and media influence (Briggs, 1998 and Ajuwon, *et al*, 2001).

Sexually transmitted infections (STIs) are infections that are spread primarily through person-to-person sexual contact. There are more than 30 different sexually transmissible bacteria, viruses and parasites. The most common sexually transmitted infections are Gonorrhoea, Chlamydial infection, Syphilis, Trichomoniasis, Chancroid, Granuloma inguinale, Candidiasis, Genital herpes, Genital warts, Human immunodeficiency virus (HIV) infection and Hepatitis B infection (Ajuwon, *et al*, 2001). Several, in particular HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth, and through blood products and tissue transfer. The clinical features of these diseases includes painful menstruation, penile or vaginal discharge, itchy perineum, Lower abdominal pain, swollen glands in the groin, fever on and off, menstrual disorders, genital ulcers, painful or difficult intercourse, warts in the genital area, conjunctivitis in infants born to infected mothers and sores in the mouth. However many are asymptomatic. It must be stated that not all the symptoms enumerated above may be seen in a single individual. On the other hand, HIV/AIDS may be accompanied by symptoms such as fever, weight loss, sore throat, chronic diarrhea, skin rash and other non specific symptoms (WHO, 2008).

Sexually transmitted infections including HIV/AIDS have been reported to be disproportionately high among young people in Nigeria. Report reveals that about 50% of new HIV infections in Nigeria occur in people between 15-25 years of age (DaRos and Schmidt, 2008). Sexually transmitted infections including HIV/AIDS present enormous problem in Nigeria and it is fast becoming an international health problem, and with HIV/AIDS for which curative therapy is unavailable, primary prevention assumes greater importance. Modifying selection of sexual partners and avoiding certain sexual practices may theoretically reduce the risks of infection (Fawa, 1999; Temin, *et al,* 1999).

While the reported number of young people infected with HIV/AIDS in Nigeria seems to be rapidly increasing, a good opportunity exists to prevent the epidemic from exploding to unmanageable proportions provided there is a willingness to mitigate the spread. Therefore adequate information about the determinants of sexual and reproductive behaviour of young people is critical (Sekirime, *et al,* 2001).

In tune with the rising rates of HIV infection among adolescents, a deluge of intervention activities that focus on increasing awareness, and access to information and services, and encouraging changes in behaviour that facilitate the spread of infections among those who are sexually active have been put in place. However, there is evidence that many still lack adequate information and the necessary skills to enact and sustain healthy behavior (NIC, 2005).

Problem Statement

Adolescents constitute a great resource base for humanity. The productive workforce of any country and indeed the world consists of this demographic group of people. Consequently, any adverse health affliction of this group portends untoward and deleterious consequences on the economic virtues of any country. STIs including HIV/AIDS have the capacity to cause this. Thus their effects remain of grave public health importance. Not only because of the debilitating morbidity and loss of man-hours they can cause, but also for their ability to inflict serious mortality on any population. The need therefore arises for proactive action aimed at instilling among the young adults, particularly undergraduates, those attributes capable of enhancing sexual and reproductive development. Improving knowledge and imbibing good sexual attitudes remain critical in realizing this objective. It therefore becomes pertinent, if not urgent to invigorate activities targeted at curtailing the menace of poor knowledge and attitudes to sexual issues among undergraduates.

This study was aimed at assessing the level of knowledge of university students concerning sexually transmitted infections (STIs) including HIV/AIDS by determining the students' level of awareness about the types, routes of transmission and symptoms of STIs including HIV/AIDS and the preventive measures available.

Study Area

The study was carried out in the University of Abuja, located in Gwagwalada town. Gwagwalada town is located about 40kilometers away from the Federal Capital City and it is centrally located within the FCT. It is located between latitude $8^{o}55'$N and $9^{o}00'$N and longitude $7^{o}00'$E and $7^{o}00'$E. The Gwagwalada Area Council where Gwagwalada is located is bounded by Kuje Area Council to the East, Abaji Area Council to the West Kwali Area Council to the South and Abuja Municipal Area Council to the North East and Suleja Local Government of Niger State to the North (Balogun, 2001).

Sampling Procedure and Data Collection

The population for the study consisted of students randomly selected from the departments of Agricultural science, Economics, English, History, Theatre Arts, Geography, Public Administration, Accounting, Physics, Biological Sciences, Sociology, Political Science, Public and International Law and Veterinary Medicine, cutting across seven (7) faculties. These were faculties of Arts, Education, Management Sciences, Science, Social Sciences, Law and Veterinary Medicine. The stratified random sampling technique was adopted. For the purpose of the study, a total of 400 copies of a questionnaire were administered in the selected faculties and three hundred and sixty seven (367) were retrieved, out of which, eleven (11) were rejected due to poor filling, remaining three hundred and fifty six (356) copies. Data collected from the questionnaire were utilized and descriptive statistics such as frequencies, percentages and mean were adopted for the analysis. Bar charts, pie charts and tables were also used in the presentation of results.

Results and Discussion

Knowledge of HIV/AIDS

The figure below shows the knowledge of the respondents about HIV/AIDS. The result reported high knowledge (91%) of HIV/AIDS. Few (1%) reported not having heard of the infection, while Eight percent (8%) did not respond.

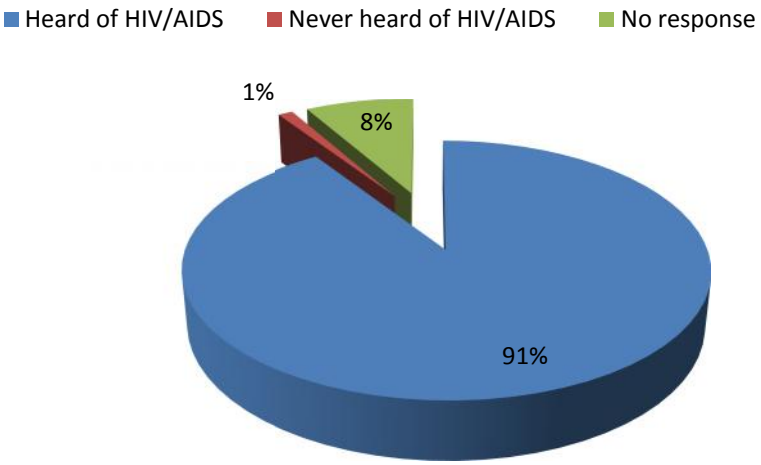


Fig 1: Distribution of knowledge of HIV/AIDS

Knowledge about sexually transmitted infections (STIs)

Adequate knowledge is of utmost importance in the fight against the rampaging effects of STIs, particularly, HIV/AIDS. The results in Table 1 below reveal a high level of knowledge of STIs among the respondents.

Table 1: Knowledge of STIs

Respondents who have heard of STIs	Frequency (N)	Percentage
Yes	311	87.4
No	28	7.8
No response	17	4.8
Total	**356**	**100**

Source: fieldwork, 2011

Table 1, shows the responses of the study population to the question as to whether they have heard of sexually transmitted infections. The report showed that majority had heard about STIs. Three Hundred and Eleven (87.4%) indicated that they have heard of sexually transmitted infections (STIs) including HIV/AIDS. Twenty – Eight (7.8%) said they have never heard of it,

this was probably because they were not informed, while Seventeen (4.8%) did not respond. The results from figure 1and table 1 therefore indicated that with regards to conventional STIs, knowledge was quite high. Similarly, the findings revealed that knowledge about HIV/AIDS was equally high. About Ninety- One percent (90.7%) of respondents had heard of HIV/AIDS. The result tallies with those from Benin Republic and Nigeria which reported knowledge level of 88.6% and 91% respectively (Fawole *et al,*1999; Adedimeji, 2005).

Knowledge of Types of STIs

The conventional STIs include Gonorrhoea, Syphilis, Chancroid, Herpes Genitalis, Chlamydia infection etc. Figure 2 below shows the distribution of knowledge of STIs according to type among the respondents.

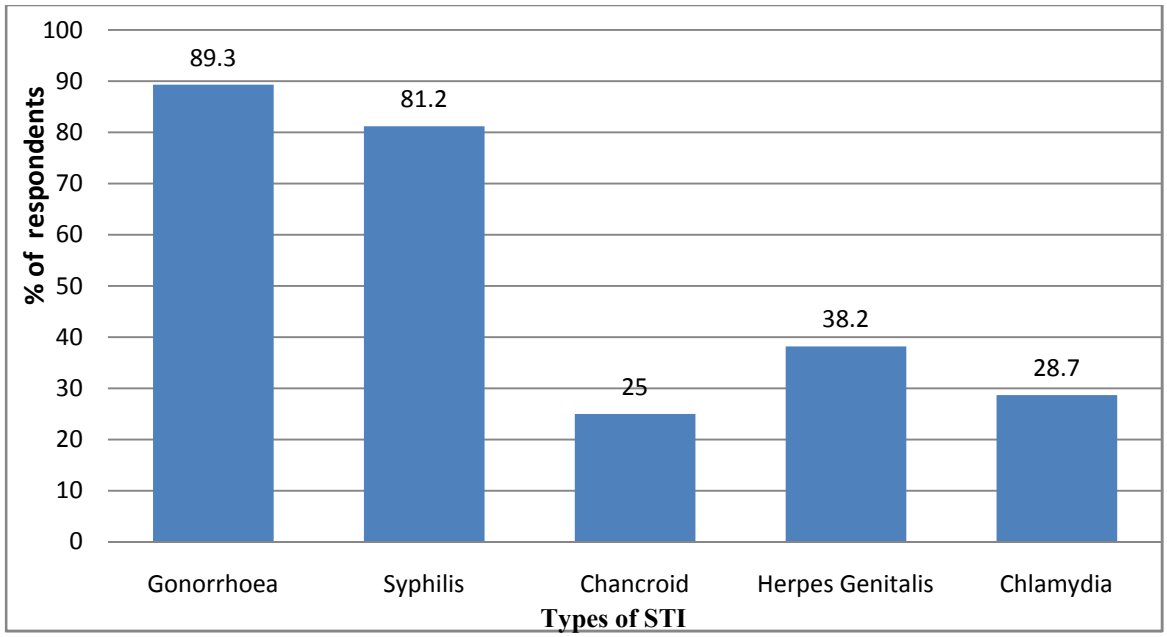


Fig 2: Knowledge of respondents on types of STIs

The figure above showed that the most known types of STIs among the respondents were Gonorrhoea and Syphilis which accounted for 89.3% and 81.3% respectively. The least known STI was chancroid, which accounted for 25%. The findings support the result from a study on refugees in Ogun state, Nigeria and Nairobi, Kenya (Lema and Hassan,1994; Iyaniwura and Okusanya, 2005), which showed that the most known STI was Gonorrhoea.

Source of Knowledge about STIs Including HIV/AIDS

Information relating to STI including HIV/AIDS can be accessed through many sources. These include; Friends (peers), parents, Teachers, Television (Mass media), Newspaper etc. Figure 3 below shows varying sources of knowledge about STIs including HIV/AIDS as provided by the respondents.

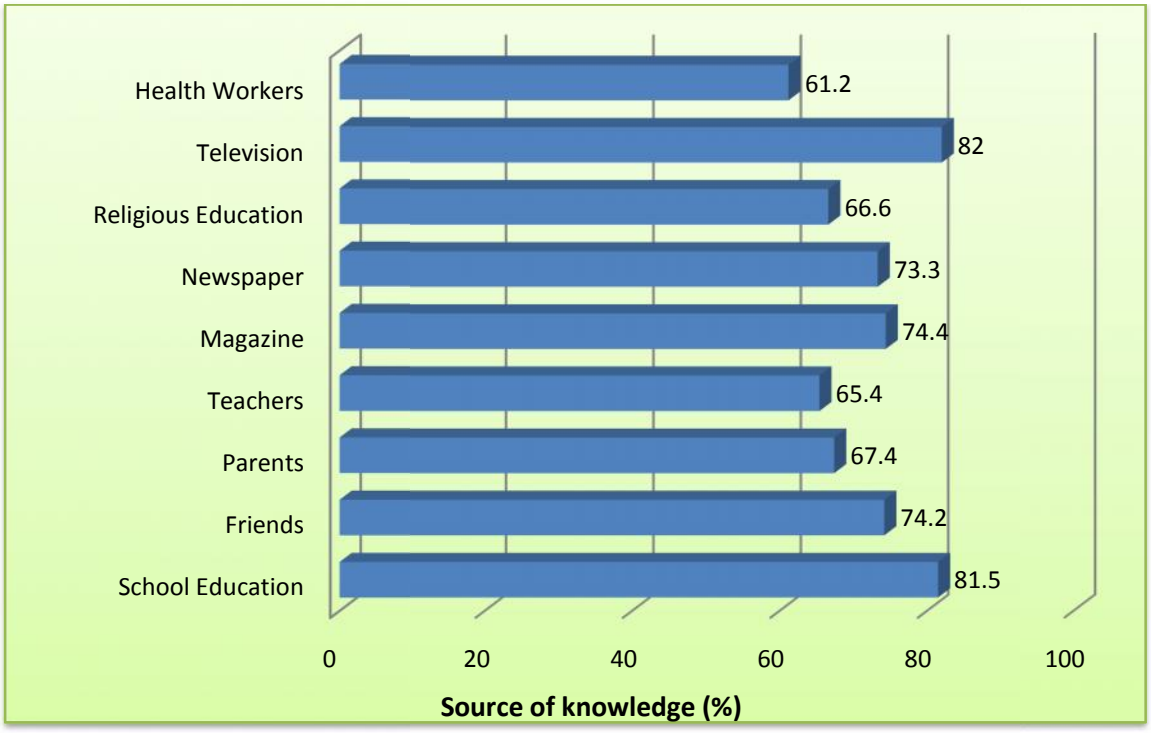


Figure 3: Distribution of source of knowledge about STIs including HIV/AIDS

Figure 3 is a representation of sources of knowledge of STIs and HIV/AIDS. The results indicated that the highest source of information among the respondents was from Television, accounting for 82% level of knowledge. This was followed by school education, magazine, friends, Newspaper, parents, Religious education teachers and health workers. These accounted for 81.5%, 74.4%, and 74.2%, 73.3%, 67.4%, 66.6%, 65.4% and 61.2% respectively. There is agreement between the result and that conducted among selected adolescents in Nigeria, which reported that the most frequent source of information were mass media and peers (friends). However, there was significant difference between the two as the above quoted study reported lower percentages in comparison to the higher percentages recorded here (Araoye and Adegoke,

1996). The implication here may be the improved methods of information dissemination using the various mentioned means.

Knowledge about Routes of Transmission of STIs and HIV/AIDS

Transmission of HIV/AIDS can be through many ways. Whatever route, the basic denominator is the admixture of body fluids. Consequently, the infection could be transmitted through sexual intercourse, blood transfusion, Mother to unborn child, sharing sharp objects like needle, razor etc.

Table 2: Distribution of Knowledge of Routes of transmission of STIs including HIV/AIDS

Responses	Route of transmission (Frequency and %)							
	Sxi	Blt	Muc	Sht	Sso	Seu	Wtc	Kss
Yes	333(93.5)	323(90.7)	277(77.8)	17(4.8)	298(83.7)	7(2.0)	24(6.7)	53 (14.9)
No	2(0.6)	2(0.6)	18(5.1)	176(49.4)	11(3.1)	181(50.8)	172(48.3)	153 (43.0)
No response	21(5.9)	31(8.7)	61(17.1)	163(45.8)	47(13.2)	168(47.2)	160(44.9)	150 (42.1)
Total	356(100)	356(100)	356(100)	356(100)	356(100)	356(100)	356(100)	356 (100)

Source: fieldwork, 2011
Key: Sxi: Sexual intercourse; Blt: Blood transfusion; Muc: Mother to unborn child; Sht: Sharing toilet; Sso: Sharing sharp objects; Seu: Sharing eating utensils; Wtc: Witchcraft; Kss: Kissing;

Data from the result in Table 2 above shows that the result obtained from respondents concerning their knowledge about routes of transmission of STIs including HIV/AIDS was high. Three hundred and thirty three (93.5%) of the respondents, selected sexual intercourse as a route of contracting the infections. Also other routes as reported were through blood transfusion (90.7%), Mother to unborn child (77.8%), sharing of sharp objects like syringes, needles etc (83.7%) and through kissing (14.9%). Seven (2%) agreed that the STIs including HIV/AIDS could be contracted through sharing of eating utensils. The result therefore strongly disagrees with that of a study conducted on street youths in Accra, Ghana (Anarfi and Antwi, 1995), which reported a high level of misconceptions such as that HIV/AIDS could be transmitted by

witchcraft and kissing. Notwithstanding, there was still a point of convergence concerning the reported high awareness levels of routes of transmission in the two results.

Knowledge about Symptoms of HIV/AIDS

Figure 4 below shows the knowledge of respondents concerning the symptoms of HIV/AIDS. It was evident from the result that knowledge of symptoms of sexually transmitted infections including HIV/AIDS was high.

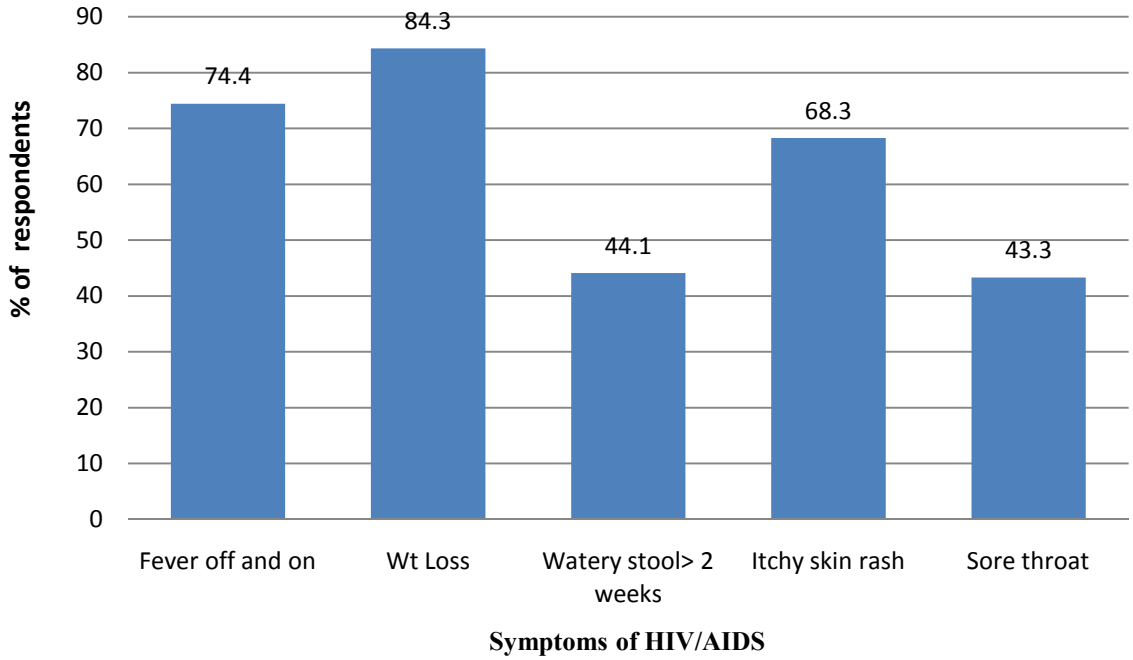
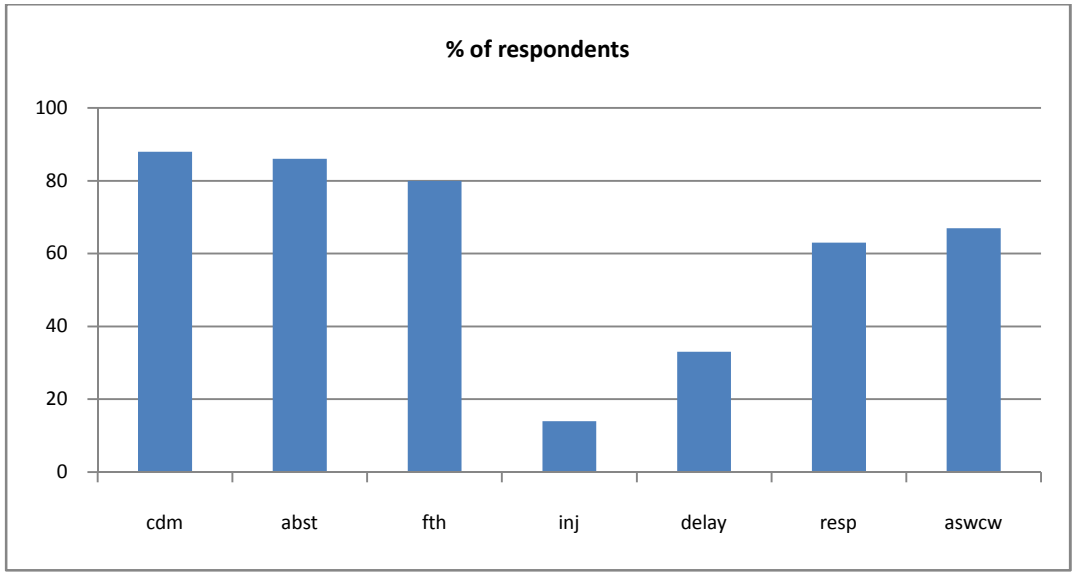


Fig 4 : Distribution of Knowledge of symptom of HIV/AIDS

The report showed that the most known symptom of HIV/AIDS was weight loss, accounting for 84.3% of responses. This was followed by fever off and on (74.4%), Itchy skin rash (68.3%), watery stool lasting for more than two weeks (44.1%) and sore throat (43.3%). The result does not agree with that from Benue, Nigeria (Iyaniwura and Okusanya, 2005), which recorded low knowledge of symptoms with the most frequently known symptom being skin rash.

205 ***Knowledge of Preventive Measures by Method***

206 Prevention remains the mainstay strategy in the fight against STI including HIV/AIDS.
207 Faithfulness to one uninfected partner, use of condom, abstinence, avoiding commercial sex
208 workers etc are some preventive measures.



209

210 **Fig5: Distribution of knowledge of Preventive measures by method.**
211 ***Key:** cdm: condom use; abst:abstinence from sex ; fth: faithfulness to one uninfected partner; inj: use of injection
212 after sex; delay: delay onset of sex; resp: reducing number of sexual partners; aswcw: avoiding sex with commercial
213 sex workers.
214

215 Figure 5 shows knowledge of measures for preventing STIs including HIV/AIDS among the
216 respondents. The result displayed a high level of knowledge of preventive measures (87.4%).
217 Condom use was the most known preventive measure, accounting for 88.2% and was followed
218 by abstinence from sex and faithfulness to one uninfected partner, each of which accounted for
219 86% and 79.8% respectively. The result disagrees with the report of the work carried out in
220 Nigeria, which reported that the most known method for preventing HIV/AIDS infection was
221 faithfulness to one uninfected partner. The result equally showed that 32.9% of students have
222 never engaged in sex, which is encouragingly significant. The result also agreed with the report
223 of a work in Nigeria by Iyaniwura and Mautin (2008), which reported 40% abstinence.

224

Conclusion and Recommendation

The above study examined the knowledge of sexually transmitted diseases including HIV/AIDS among undergraduates in University of Abuja. Generally it was found that knowledge about STI including HIV/AIDS was high. The study also revealed high knowledge among the students about the types of sexually transmittable diseases, the routes of transmission and symptoms of HIV/AIDS, and the preventive measures of STIs and HIV/AIDS. It may be apt to conclude that the numerous intervention measures are making positive impacts on awareness creation among the undergraduates with regards to the topic under study. However, it is not certain from the study, the degree of association that the noted improvement in knowledge had on attitudinal and behavioral determinants of sexuality and its related problems, particularly, STI including HIV/AIDS among the students. Further study will therefore have to be carried out to determine such.

- Following the findings of the study, the following recommendations are hereby suggested. Firstly, that the avenues for sensitization of the public regarding STIs including HIV/AIDS should increased as not all members of the public have adequate information on it.
- Finally, further studies may need to be carried out to determine the impact of increase in knowledge about any health issue, particularly STI including HIV/AIDS and practice of healthy behavior.

References

Adedimeji, A.A. (2005) **"Beyond Knowledge and Behaviour Change: The social- structural Context of HIV/AIDS risk perceptions and protective behaviour among young urban slum inhabitants in Nigeria"**. Takemi Programme in International Health.

Ajuwon, A.J., Olley, B.O., Akin-Jimoh, I. and Akintola, O. (2001) **"Experience of Sexual Coercion among Adolescents in Ibadan, Nigeria".** *African Journal of Reproductive Health* Vol 5(3): 120-131

Anarfi, J.K. and Antwi, P. (1995) **"Street youth in Accra city: Sexual networking in a high-risk environment and its implications for the spread of HIV/AIDS".** *Health Transition Review,* Vol. 5(suppl.): 131-152.

Araoye, M.O. and Adegoke, A. (1996) **"AIDS- related knowledge, attitude and behaviour among selected adolescents in Nigeria".** *Journal of Adolescence*, Vol. 19(2): 179-181.

Balogun, O. (2001) "**The Federal Capital Territory: A Geography of its Development".** Ibadan University Press, Nigeria.

Briggs, L.A. (1998) **"Parents Viewpoint on Reproductive Health and Contraceptive Practice Among Sexually Active Adolescents".** *Journal of Advanced Nursing*. Vol. 27: 261-266.

Da Ros, C.T. and Schmidt, C.S. (2008) **"Global Epidemiology of Sexually Transmitted Infections".** *Asian Journal of Andrology*.Vol. 10(1): 110-114.

Fawa, M.S. (1999) **"Social Determinants and Social Consequences of Sexually Transmitted Diseases and their Implications on Control Programmes".** *Nigerian School Health. Journal.* Vol. 11 (1&2) 141-146.

Fawole, I.O., Asuzu, M.C., Oduntan, S.O. and Brieger, W.R.A. (1999) **"A School-Based AIDS Education Programme for Secondary School Students in Nigeria: A Review of Effectiveness".** *Health Education Research*. Vol. 14 (5): 675 – 683.

Iyaniwura, C.A. and Okusanya, O. (2005) **"Sexual Practices Related to STIs and HIV Among Refugees at Oru Camp, Ogun State".** *Nigerian Medical Practitioner*. Vol. 47(5): 87-93.

Iyaniwura, C.A. and Mautin G. (2008) **"Sexual activity and other related practices among youth corpers in Nigeria".** *West African Journal of Medicine*, 27(1): 13-19.

Lema, V.M. and Hassan, M.A. (1994) **"Knowledge of Sexually Transmitted Diseases, HIV Infection and AIDS Among Sexually Active Adolescents in Nairobi, Kenya and its Relationship to their Sexual Behaviour and Contraception".** *East African Medical Journal.* Vol. 71(2): 122-8.

National Intelligence Council (2005) **"The Next Wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India and China: Intelligence Community Assessment (ICA) 2002-04D"** In Adedimeji, A.A. (ed.) *Beyond knowledge and behaviour change: The social- structural context of HIV/AIDS risk perceptions and protective behaviour among young urban slum inhabitants in Nigeria.* Takemi Programme in International Health.

National Population Commission. (1991) **"Numeric and Percentage Distribution of the 1991 Census Figures"**. Accessed online www.onlinenigeria.com/population/?blurb=133

Onwuezobe, I.A. (2005) **"The Attitude of Teachers to Sexuality Education in Lagos State, Nigeria".** An Unpublished MSc Project Submitted to the Department of Community Health, Lagos State University.

Sekirime, W.K., Tamale, J., Lule, J.C., Wabwire-Mangen, F. (2001) **"Knowledge, Attitude and Practice About Sexually Transmitted Diseases Among University students in Kampala"**. *African Health sciences* Vol. 1(1): 16-20.

Temin, M.J., Okonofua, F.E., Omorodion, F.O., Renne, E.D., Coplan, F., Heggenhougen, H.K. and Kaufman, J. (1999) **"Perception of Sexual Behaviour and Knowledge About Sexually Transmitted Diseases Among Adolescents in Benin City".** *International Family Planning Perspective* Vol. 5(4): 186-189.

World Health Organization. (2004) **"The Second Decade: Improving Adolescent Health and Development".** Programme Brochure. Department of Child and Adolescent Health and Development, WHO ,Geneva.