



Level of Knowledge of Sexual Transmitted infections (STIs) Among Senior Secondary School Students in Nsukka Urban, Enugu State of Nigeria.

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ABSTRACT

The purpose of this study was to ascertain the level of knowledge of sexually transmitted infections (STIs) among senior secondary school students in Nsukka urban. A sample of 373 subjects was selected for the study which adopted a cross-sectional survey design, using questionnaire as a tool for data collection. Three hundred and seventy one copies of the questionnaire were valid with 99.5 per cent return rate. Frequency table, percentages and grand mean were used to analyze the research questions while t-test was used to verify the hypothesis. The results showed that senior secondary school students in Nsukka urban possessed average level of knowledge (55.9%) about different types of STIs, average level of knowledge (56.1%) about modes of transmission, high level of knowledge (64.9%) about signs and symptoms. The t-test indicated that gender has significant influence on the knowledge of STIs ($t=5.760 > 1.960$ ($df=369$), .05). The study recommended among other things that health education should be intensified in our secondary schools system to increase the level of knowledge of our secondary school students.

KEYWORDS :

Introduction

The history of the human species according to Centers for Disease Control and Prevention (2001) shows that over the centuries, humans have been exposed to a vast amount and array of contagious infections including sexually transmitted infections (STIs). The term STIs has been variously defined. Allan (1985) defined it as infections transmitted between person through sexual intercourse or other intimate sexual contact. Similarly, Lucas and Gilles (2003) defined it as infections which are specifically transmitted during sexual intercourse. Furthermore, Leikin and Lipsky (2003) viewed it (STIs) as a large group of infection syndrome that is transmitted by sexual activities. According to them, sexually transmitted infections include more than 25 different infections that are spread from one person to another via behaviours involving the genitals, with or without apparent symptoms and signs in the genital areas. According to Meeks and Heit (2001) common STIs include bacterial vaginosis, candidiasis, trichomoniasis, chlamydial infections, gonorrhoea, nongonococcal urethritis, syphilis, genital herpes, genital warts, pediculosis pubis, viral hepatitis. Other STIs include molluscum contagiosum, scabies, shigellosis, chancroid, lymphogranuloma venereum and granuloma inguinale.

In a similar vein, the term knowledge has been variously defined. Hornby (2001) describes knowledge as the information, understanding and skills that one gains through education or experience. Read (2003) stated that knowledge is all that the mind knows from whatever source, derived, obtained, or by whatever process the aggregate facts, truths, or principles acquired or retained by the mind, including alike the intuitions native to the mind and all that has been learned respecting phenomena, causes, laws, principles, literature.

In the context of this work, knowledge is viewed as the understanding of infections such as gonorrhoea, syphilis, chancroid, candidiasis, trichomoniasis among others that are primarily transmitted from an infected person to an uninfected person during intimate sexual contact, and their modes of transmission, other than intimate sexual contact, signs and symptoms, its deleterious effects on health.

Dufour (2004) asserted that from an early age, youths are bombarded with sexual messages that encourage promiscuity. Nwankwo (2003) stated that for anything to attract very large number of audience and crowd, it needs to have the language of sex, either pictorially or in words. Nwankwo further observed that the issues of sex is at present the subject of youth club programmes, multimillion naira values, tel-

evision show, art work, and public laws. In a similar vein, Lucas and Gilles (2003) noted that the pattern of sexual behaviour is undergoing major changes in developing countries as they evolve from rural traditional societies to modern urban industrial communities. They further observed that there is also greater mobility from one community to the other, and easier communication through books, the cinema, television and internet. The attendant effect of these changes is destabilization of traditional values and customs. These changes also are reflected in sexual behaviour.

Furthermore, Leikin and Lipsky (2003) opined that any person who is sexually active is susceptible to sexually transmitted infections. According to Centers for Disease Control and Prevention (2000), surveillance revealed that 49.9% of all school students have initiated sexual intercourse. It is estimated that about 15 million Americans become newly infected with an STIs each year (centers of diseases control and prevention, 2000 and U.S. Department of Health and Human Services, 1992).

Leikin and Lipsky (2003) stated that some bacterial STIs including syphilis, gonorrhoea and Chlamydia, can have long term consequences including pelvic inflammatory disease (PID) which may cause infertility in women. The consequences of STIs cannot be over-emphasized, during pregnancy; STIs can cause complications and may produce disease or abnormalities in the foetus. Dowling (1978) noted that in addition to attacking genital and urinary organs, gonorrhoea causes complications elsewhere, some of them fatal and other producing sterility and blindness. The main disabilities of STIs include pain, discomfort, and the interference with urination and sexual functions. STIs according to center for disease control and prevention (2000) are associated with defects, blindness, bone deformities, brain damage, cancer, heart disease, infertility and other abnormalities of the reproductive system, mental retardation and death.

American School Health Association (1998) stated that more than \$8 billion is spent each year to diagnose and treat STIs and their complications. According to them, this figure does not include HIV. Since many STIs are asymptomatic, centers for disease control and prevention (2000) stressed that STIs are often undiagnosed and untreated, thus increasing their potential for proliferation among adolescents. Kehinde and Lawoyin (2005) stated that Nigeria teens face reproductive and sexual health risks. According to them, over 16 per cent of teenage females reported first sexual intercourse by age 15. Among

teenage males, 8.3 per cent reported first sexual intercourse by age 15. Centers for disease control and prevention (2000) observed that although biological factors play an important role in the transmission of STIs, it is also the health risk behaviour of adolescents that place them at increased risk for exposure to STIs, such behavioural risk factors according to them include the age of sexual activity, number of sexual partners, use of contraceptives and use of alcohol and drugs.

Terki and Malhotra (2004) observed that on average over one million. People are infected every day with an STIs, World Health Organization –WHO (1998) stated that, everyday about one million people are infected with an STIs. According to them, ten people are infected every second. WHO further observed that most of these infections occur in developing countries where the access to quality health services is limited.

In view of the above, senior secondary school students in Nsukka urban may not be exempted for the attendant consequences associated with STIs. This necessitates the present study designed to find out knowledge of STIs among senior secondary schools students in Nsukka urban.

In order to accomplish this task, three study questions were formulated thus:

1. What is the students' level of knowledge about different types of sexually transmitted infections?
2. What is the students' level of knowledge about modes of transmission of STIs?
3. What is the students' level of knowledge about signs and symptoms of different STIs?

Hypothesis

There is no statistically significant difference in the knowledge of male and female SSS students on the different types of STIs.

Methods

A cross-sectional survey design was used for this study. This design involves collecting and analyzing data from only a few people or items considered to be representative of the entire group. (Nworgu, 1991). The design was considered appropriate for the study because Ogbalu (2002) in a study of knowledge of Acquired Immune Deficiency Syndrome among senior secondary one (SS1) students in Anambra State successfully employed this design.

The population of the study consisted of all senior secondary school students in Nsukka urban. There were a total of twelve secondary schools in Nsukka urban as at 2006/2007 academic session. The total population of senior secondary school students in Nsukka urban is 3732 (i.e. male=1647, female 2085). A sample of 373 subjects was drawn representing 10 per cent of the population. This is in line with Nwana (1990) which states that when a population is in few thousands 10 per cent of the sample will do. Therefore, the multi-stage sampling procedure was adopted in selecting the subjects, using appropriate simple random sampling technique of balloting without replacement.

The instrument used for data collection in the study was the questionnaire. The respondents were required to indicate with a tick on the response option of "True, or False" as it best applied to them. The section on students' knowledge of STIs has 9 items, sections on signs and symptoms of STIs have 10 items, section on mode of transmission has 10 items.

The face and content validity of the instrument was established through the judgment of three experts drawn from the University of Nigeria, Nsukka. The instrument was given to them to justify the validity of the content in terms of clarity, appropriateness of the language and the ability to elicit the accurate information for the attainment of the stated objectives. The instrument was modified based on their inputs.

The investigators personally administered the questionnaire to the selected sample and collected it on the spot after the subjects have responded. This was necessary because of the test nature of the instrument. Data collected was examined to ensure completeness of

information and response. The responses were coded. The data that was collected based on research questions was put into frequency table and their percentages calculated. The data generated from the research questions were analyzed using percentages, and grand mean per cent. The postulated hypothesis was tested at .05 level of significance using t-test statistics. Ashur (1997) outlined principles for determining the level of knowledge was used in interpreting the results. According to him, any proportion that is less than 40 per cent is regarded as very low, 40-49% as low, 50-59% as average, 60-69% as high, while 80% and above is regarded as very high. This was employed in reaching decisions on the level of knowledge of STIs among senior secondary students in Nsukka urban.

Results and Discussion

The findings of the study are presented in the tables below according to the research questions and hypothesis, which guided the study.

Table 1
Knowledge about Different types of STIs (N=371)

Item	Responses			
	Correct responses		Incorrect responses	
	f	%	f	%
Gonorrhoea	319	86.0	52	14.0
Candidiasis	226	60.9	145	39.1
Chancroid	131	35.3	240	64.7
Syphilis	269	72.5	102	27.5
Genital warts	204	55.5	167	45.0
Cholera	99	26.7	272	73.3
Cancer	88	23.7	281	76.3
Scabies	181	48.8	190	51.0
Overall mean %		55.9		44.1

Table 1 shows that 55.9 per cent of the respondents possess average level of knowledge about different types of STIs, while 44.1 per cent have low level of knowledge.

Table 2
Knowledge of Modes of Transmission of STIs (N=371)

Item	Responses			
	Correct responses		Incorrect responses	
	f	%	f	%
Sexual contact	308	83.0	63	17.0
Oral or anal sex	256	69.0	115	31.0
Infected person's cloth	147	39.6	224	60.4
Infected mother to foetus	295	69.8	112	30.2
Blood/blood products	289	77.9	82	22.1
Bathroom equipment	142	38.3	29	61.7
Deep kissing	195	52.6	176	47.4
Infected toilet seats	162	43.7	209	56.3
Tissue transplant	250	67.4	121	32.6
Sneezing	74	19.9	297	80.1
Overall mean %		56.1		43.84

Table 2 shows that 56.1 per cent of the respondents possess average level of knowledge about modes of transmission of STIs, while 43.8 per cent have low level of knowledge.

Table 3
Knowledge of Signs and Symptoms of STIs (N= 371)

Item	Responses			
	Correct responses		Incorrect responses	
	f	%	f	%
Virginal discharge	264	71.2	107	28.8
Genital irritation	268	72.2	103	27.8
Painful urination	315	84.9	56	15.1
Skin rash	167	45.0	204	55.0
Fever, weight loss	273	73.6	98	26.4
Sickle cell	104	28.0	267	72.0
Sensation of stiffness	240	64.7	131	35.5
Foul odour	243	65.5	128	34.5
Pain and itching	293	79.0	78	21.0
Overall mean %		64.9		35.1

Table 3 shows that 64.9 per cent of the respondents possess high level of knowledge about signs and symptoms of STIs while 35.1 per cent possess low level of knowledge.

Table 4
Summary of t-test analysis on no statistically significant difference in the knowledge of SSS students on types of STIs base on gender (N=371)

Gender	N	X	SD	DF	t. cal.	t. crit.	P<.05
Male	186	62.82	4.953	369	5.760	1.960	
Female	185	60.97	5.487				

Table 4 shows that .05 level of significance 369 df, the calculated t, value of 5.760 is greater than the critical t 1.960. The null hypothesis which stated that there is no statistically significant difference in the knowledge of male and female SSS students on the different type of STIs is rejected.

Discussion of the Findings

Results in table 1 revealed that the SSS students in Nsukka urban possessed average level of knowledge about different types of STIs. The finding was surprising and therefore unexpected. This is because Nsukka urban is an academic environment, as a result, the researchers anticipated its strong influence on the student's knowledge of different types of STIs. Although, the finding showed a slight improvement over that of Nwankwo (2003) which indicated that 1050 males were knowledgeable of 5 out of 18 STIs presented while 1450 females were knowledgeable of 6 out of 18 STIs presented. It was below expectation and conforms with the view of Kehinde and Lawoyin (2005) who hold that Nigerian teens face reproductive and sexual health risk. They observed that over 16 per cent of teenage females reported their first sexual intercourse by age 15, while 8.3 per cent of teenage males did at the same age.

Similarly, results in table 2 showed that the students had average level of knowledge about the modes of transmission of STIs. The finding was not surprising and therefore, expected. This is because the findings is in line with the view of Centers for Disease Control and Prevention (2004) which holds that youths living in poverty may not perceive the risk of STIs or may not practice preventive measures if other risks such as hunger or homelessness appear more imminent and threatening. They noted that in addition to poverty, other socio-economic factors contribute to STIs risks. The finding also agrees with the opinion of Centers for Disease Control and Prevention (2001) who observed that adolescents living on the streets, which many of them are

lesbians, gay, bisexuals, are at high risk of STIs as they often engage in survival sex (trading sex for food, clothing, shelter or money) and use harmful substances which often makes them fall victims for sexual assault and harassment.

Results in table 3 indicated that the SSS students in Nsukka urban possessed high level of knowledge of different types of STIs. This was surprising and therefore unexpected because it contradicted the assertion of Centers for Disease Control and Prevention (2000) that many STIs are asymptomatic and are often undiagnosed and treated, thus increasing their potential for proliferation among adolescents. However, the null hypothesis that there is no statistically significant difference in the knowledge of male and female SSS students on the different types of STIs was rejected. The finding is not surprising. The null hypothesis is thereby upheld indicating that there is no significant knowledge of male and female SSS on the different types of STIs. Thus, gender has no influence on the different types of STIs among the SSS. This finding is consistent with the assertion of Read (2003) which stated that knowledge is all that the mind knows from whatever source, derived, obtained, or by whatever process the aggregate facts, truth or principles acquired or retained by the mind, not based on individual affiliations.

Implications of the study

The findings revealed that senior secondary school students in Nsukka urban possessed average level of knowledge about different types of STIs, average level of knowledge about modes of transmission, and high level of knowledge about signs and symptoms of STIs. This shows that the students are vulnerable to devastating effects of STIs. Therefore, government at various levels, NGOs, health educators, and other health professionals should as a matter of urgency sensitize the public on dangers of STIs. Government should make sex education in the school curriculum compulsory at all levels of our education system.

Conclusions

Based on the findings and discussion, the following conclusions were drawn:

1. The senior secondary schools in Nsukka urban possessed average level of knowledge on the different types of STIs.
2. The students had average level of knowledge on the mode of transmission of STIs.
3. The students possessed high level of knowledge on the signs and symptoms of STIs.
4. Gender has significant influence on the knowledge of STIs.

Recommendations

Based on the findings and conclusions, the following recommendations were made.

1. The Ministry of Health, Non Governmental Organizations (NGOs) and other health related agencies should design information dissemination programmes for students on the dangers of STIs.
2. Curriculum in schools, colleges and universities should be diversified in order to accommodate topics on STIs which could be inculcated in their general studies courses.
3. Parents should also give their children proper education, informing them the dangers of pre-marital sex, infidelity after marriage, and encourage questions concerning sex and providing the right and realistic answers.
4. Government should campaign against all cultural practices that encourage the transmission of STIs.

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