

Original Article

Knowledge, Sources of information, and Risk Factors for Sexually Transmitted Infections among Secondary School Youth in Zaria, Northern Nigeria

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Abstract

Background: Sexually transmitted infections (STIs) are responsible for a variety of health problems especially among the youth who engage in risky sexual behavior. There are few studies that describe STIs among the youths in Northern Nigeria. The objective of the study was to assess knowledge of STIs and risk factors among secondary school youth.

Materials and Methods: This was a cross-sectional study in which structured, self-administered questionnaire was used to collect data on socio-demographics, knowledge on STIs, and risk factors. Three senior secondary schools were purposively selected for the study.

Results: A total of 1765 youths aged 10-30 years with mean age of 16.9 ± 2.0 years participated in the study. 1371 (77.7%) and 394 (22.3%) were respectively Muslim and Christian. Mean age at first sexual intercourse was 16.7 ± 2.0 years. A majority (67.6%) of them heard about STIs; sources of information of STIs were school lessons 23.6%, mass media 23.3%, and health magazines 19.2%, respectively. Generally, knowledge on STIs was good as 75.4% of respondents knew how the disease is transmitted. This knowledge was significantly associated with class of student, place of treatment, and religious teaching ($\chi^2 = 9.6, P = 0.047, \chi^2 = 22.1, P = 0.035$ and $42.6, P = 0.001$, respectively). Mean knowledge score was 0.698 ± 0.01 . A majority of respondents were engaged in risky sexual behavior as only 16.2% use condom as a preventive measure. Eleven percent reported ever having an STI in the past and majority (52.8%) go to government hospital for treatment of acquired STI. 56% of the youth had two or more boy/girl friends and 30% had sexual relationships.

Conclusion: It was concluded that secondary school youth had good knowledge about STIs; however, the opposite is true when it comes to preventive practice (use of condom). Interventions such as periodic publicity awareness and school seminars focusing on STI preventions are needed to control the disease among the youth.

Key words: Knowledge levels, risk factors, sexually transmitted infections, youth, Zaria-Nigeria

Introduction

Sexually transmitted infections (STIs) are now the most common group of notifiable infectious diseases in most countries and are responsible for a variety of public health problems among the youth. STIs are also the most

international of all disease affecting mankind and in all countries, they are of major social and public health importance.^[1,2] STIs rank among the five most important causes of healthy productive life lost in developing countries.^[3] More than two dozen bacterial, viral, or parasitic infections are known to be transmitted largely or collectively through sexual contacts. Until the 1990s, STIs were commonly known as venereal diseases (VD): Veneris is the Latin genitive form of the name of 'Venus', the Roman goddess of love. Social disease is yet another euphemism.^[4]

Young people between the ages of 18 and 24 years comprise the largest and fastest growing population in sub-Saharan Africa. By 1995 the population of

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this age group grew to 56 percent and in Nigeria it accounted for more than 30 million of its estimated 150 million.^[5] Social and biological factors coupled with early sexual initiation and unprotected sexual activities expose the youth to the risk of contracting STIs including human immunodeficiency virus infection.

Globally, young people under the age of 25 years experience over 100 million new cases of STIs annually.^[6] Studies from many developing countries have shown that a high population of young people are engaged in unprotected sex.^[7-9] Several factors have been reported to discourage use of preventive measures against STIs amongst the youth population subgroup. Issues like condoms reducing sexual pleasure, financial constraints, and social norms that perpetuate women's subordination as well as traditional views of manhood have been incriminated.^[10,11]

Historically, knowledge about STIs has been very low even in communities where there is high prevalence of STIs. There may be lack of concern about STIs because they may be viewed as easily curable.^[12] It has been suggested that knowledge about STIs transmission might influence sexual behavior.^[13] STIs are among the most common reasons for seeking medical care in many parts of Africa. Despite their widespread economic and social impact, there is dearth of information on STIs in this part of the country. This research will serve as baseline information that could be linked to future follow-up or intervention programs.

Materials and Methods

The metropolis of Zaria with its cosmopolitan nature has a population of 698,348^[14] used to be the capital of one of the famous seven Hausa states and an important historic town in northern Nigeria. Until recently, it held the enviable position of having the largest number of institutions of higher learning in Northern Nigeria, including the largest university in Nigeria (Ahmadu Bello University).

The study population comprised 1768 youths in senior secondary school (SS 1-2). This was a cross-sectional descriptive study designed to assess knowledge, sources of information, risk factors, treatment, and prevention of STIs among secondary school students. Data was collected using a structured self-administered questionnaire. The questionnaire was pre-tested in a secondary school that was not part of the study to ensure reliability and validity. Information gathered included among others, their socio-demographic characteristics, knowledge on causes, mode of transmission of STIs, number of sexual partners, place of treatment of acquired STIs, and use of preventive measures. With permission and cooperation of respective class teachers,

questionnaires were administered in the class during break period. The filled questionnaires were retrieved from the student before leaving the class. The research team was distributed and divided among the study sites and closely supervised the respondents while filling in the questionnaires.

Knowledge was assessed in the following areas concerning STIs: Different types of STIs, mode of transmission, symptoms, and use of preventive measures.

The purposive sampling technique was used to sample three schools, namely all boys, all girls and co-educational (mixed) secondary schools, respectively. All the students in these classes (SS 1-2) who consented and were available at the time of data collection participated in the study. Final year (SS3) students were excluded because they were no longer coming to school since they had taken the final school certificate examinations (West African Examinations Council (WAEC) and National Examinations Council (NECO)). The study was conducted from July to August 2012.

Ethical approval was obtained from the medical and ethics committee of Ahmadu Bello University Teaching Hospital and permission for the study from zonal inspectorate office of Ministry of Education. The respective principals of selected schools were informed and their approval was sought. The students' consent was obtained orally prior to questionnaire administration and respondents' anonymity was protected by ensuring that no student identifiers existed in the data collection instrument.

Data was analyzed using SPSS version 17. Statistical tests of significance were carried out at $P < 0.05$ for categorical variables.

Results

A total of 1768 students from SS1 and 2 participated in the study out of which 1765 questionnaires were finally analyzed. Their age range was 10-30 with a mean age of 16.9 ± 2.0 years out of which (77.7%) were Muslims. The mean age at first sexual intercourse was 16.7 ± 2.0 years [Table 1]. A majority (67.6%) of students heard about STIs and sources of information on STIs were school lessons (23.6%), mass media (23.3%), and health magazines (19.2%) [Table 2].

Fifty-six percent of the youth reported to have two or more boy or girlfriends and 30% had sexual relationships. Generally, knowledge on STIs was good as all the respondents knew the symptoms of STIs but only 75.4% knew correctly how the disease is transmitted [Table 3]. This knowledge was significantly associated with

class of students, place of treatment, and religious teaching ($X^2 = 9.6, P = 0.047, X^2 = 22.2, P = 0.035$ and $42.6, P = 0.001$, respectively). Eleven percent reported having an STI in the past [Table 4]. A majority of respondents were engaged in risky sexual behavior as only 16.2% use condom as a preventive measure and majority (52.8%) go to government hospital for treatment of acquired STI [Table 5].

Table 1: Sociodemographic features of the respondents

| Demographic characteristics | Frequency | Percentage |
|---|-----------|------------|
| Age (years) | | |
| 10-14 | 130 | 7.4 |
| 15-19 | 1361 | 77.1 |
| 20-24 | 139 | 7.9 |
| 25-29 | 11 | 0.6 |
| >= 30 | 124 | 7.0 |
| Total | 100 | 1765 |
| Mean age=16.9±2.0 Mean age at sexual debut=16.7±2.0 | | |
| Tribe | | |
| Hausa | 1023 | 58 |
| Yoruba | 140 | 7.9 |
| Igbo | 76 | 4.3 |
| Other tribes | 526 | 29.4 |
| Total | 1725 | 100 |
| Class | | |
| SS1 | 1014 | 57.4 |
| SS 2 | 751 | 42.6 |
| Total | 1765 | 100 |
| Schools | | |
| Alhudahuda | 439 | 24.9 |
| Dogon Bauchi | 736 | 41.7 |
| Demonstration | 590 | 33.4 |
| Total | 1765 | 100 |
| Religion | | |
| Islam | 1371 | 77.7 |
| Christianity | 394 | 22.3 |
| Total | 1765 | 100 |

Table 2: Sources of information on the STI

| Sources | Frequency | Percentage |
|------------------|-----------|------------|
| School lessons | 416 | 23.6 |
| Newspaper | 97 | 5.5 |
| Health magazines | 339 | 19.2 |
| Mass | 412 | 23.3 |
| Friends | 96 | 5.4 |
| Parents | 140 | 7.9 |
| No response | 165 | 9.3 |
| Total | 1765 | 100 |

STI - Sexually transmitted infections

Table 3: Proportion students with knowledge of STIs

| Knowledge | Frequency | Percentage |
|----------------------------|-----------|------------|
| Transmission | 1324 | 75.4 |
| Symptoms | 1765 | 100 |
| STI prevention | 1447 | 82.0 |
| Place of treatment | 1096 | 62.1 |
| How STI can be prevented | 563 | 31.9 |
| Preventive methods of STIs | 1103 | 62.5 |

STI - Sexually transmitted infections, Mean knowledge score= 0.698±0.001

Discussion

The study revealed that the mean age of respondents was 16.9 ± 2.0 years. This “youthful age” is a period regarded as a time of intense sexual drive, sex, and experimentation.^[15] In this study, 30% of the youths admitted to having sexual relationships. Studies have documented high indulgence in sex among these young people. Sexual involvement has been reported to be as high as 70% among in and out of school youth aged 15-20 years in Tanzania.^[5] Also, it was observed in Nigeria that 50% of secondary school students were sexually active and most of them had sexual debut between 15 and 19 years while in South Africa at least 50% of young people are sexually active by the age of 16.^[10] The age at sexual debut reported in this study is in consonance with other studies^[3,16] and suggests sexual drives at young ages may overcome moral issues. A majority of students had heard about STIs and none of them mentioned parents or relations as a source of information which is consistent with previous local and international studies.^[17-21] Obviously, school lessons, mass media, etc., have become an important source of information to these youths. This might not be unconnected to the HIV/AIDS epidemic that is again common among this population. Previously, because of cultural and religious factors,^[22] it is difficult to openly discuss and even teach youths sex education. The publicity campaigns on HIV/AIDS prevention have opened a window of opportunity to also discuss other sexually transmitted infections. Knowledge is an essential cornerstone to sexual risk reduction and a basis to create awareness among youths on sexual practices that involve risks. In this study, knowledge on STIs was good as majority of respondents knew how the disease is transmitted and also the symptoms associated with STIs. This knowledge level was significantly associated

Table 4: Proportion of the clients who had STI in the past 3 months.

| Previous STI | Frequency | Percentage |
|--------------|-----------|------------|
| Yes | 205 | 11.6 |
| No | 968 | 54.8 |
| No response | 593 | 33.6 |
| Total | 1765 | 100 |

STI - Sexually transmitted infections

Table 5: Distribution of the place of treatment of STI by respondents

| Places of treatment | Frequency | Percentage |
|-----------------------|-----------|------------|
| Governmental hospital | 933 | 62.1 |
| Private hospital | 352 | 23.4 |
| Chemist | 72 | 4.8 |
| Medicine vendors | 85 | 5.7 |
| Traditional healer | 49 | 3.3 |
| Others | 10 | 0.7 |
| Total | 1502 | 100 |

STI - Sexually transmitted infections

with class of students, place of treatment, and religious teachings. This was consistent with findings of other studies.^[3,5] It has been suggested that knowledge on STI transmission might influence sexual behavior^[23] and thus knowledge is an important prevention factor for STIs.^[24]

About 56% of the students have two or more boy/girlfriends and 30% reported to have experienced sexual intercourse which is consistent with the report of earlier studies.^[5,23] Having multiple sex partners is a significant behavioral risk factor for STIs including HIV.^[24] This is in agreement with a study in Turkey.^[25] Also, use of prevention methods among respondents was low as only 16% of them used condom. This is not surprising as several factors have been reported to discourage use of preventive measures for STIs.^[10] Sometimes STIs may be viewed as unavoidable or may even be viewed as an “initiation into adulthood”. There may be lack of concern on the part of the students about STIs because they may be viewed as easily curable.^[12] This might explain the low rate of response among participants who ever had STI in the past. Another factor that may contribute low response is stigma associated with having an STI. This might explain the low rate of response among participants of who ever had STI in the past. Stigma associated with the disease is yet another factor. The youths are also at risk due to high levels of risky sexual behaviors and the attitudes, expectations, and limitations of the societies in which they grow up.^[26]

Conclusion

It was concluded that secondary school youth had a good knowledge about STIs; however, the opposite is true when it comes to preventive practice (use of condom). Interventions such as periodic publicity awareness and school seminars focusing on STI preventions are needed to control the disease among the youth. The study has also brought to the fore the need for adolescent friendly clinics where the youths can seek treatment inclusive of acquired STIs, without the fear of discrimination or stigma.

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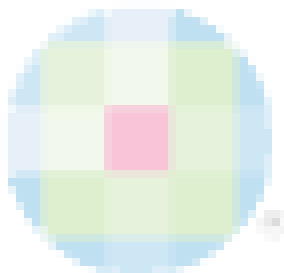
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