



KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTION AMONG SECONDARY SCHOOL STUDENTS IN OGBA/EGBEMA/NDONI LOCAL GOVERNMENT AREA OF RIVERS STATE

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ABSTRACT: *This study assessed the knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State. Five research questions and four hypotheses guide the study. The cross-sectional survey design was adopted for the study. A structured questionnaire with a reliability co-efficient 0.81 was used for data collection. Data was analysed using percentages and chi-square. The result showed that the knowledge of sexually transmitted infection among secondary school students in ONELGA was high as majority 370(93.0%) have ever heard about STIs. The types of STIs known to the respondents were gonorrhoea 387(97.2%), syphilis 388(97.5%), HIV/AIDS 398(100%), Hepatitis B 365(91.7%), Chlamydia 363(91.5%) and Herpes 364(91.5%). Majority 390(98.0%) knew that sexual intercourse is the transmission route of STIs. There was no significant influence of gender and age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State ($p>0.05$). It was recommended among others that health educators should mobilize resources and take measures to improve young people's awareness and knowledge about STIs prevention through educational training and guidance to maintain active and healthy lives.*

KEYWORDS: Sexually Transmitted Infection (STI), Secondary School Students, Health Educators, Rivers State, Nigeria



INTRODUCTION

Sexually transmitted infections (STIs) are major health problems affecting mostly young people, not only in developing, but also in developed countries. Sexually transmitted infections are illnesses that have a significant probability of transmission from infected person to normal persons through sexual behavior, including vaginal intercourse, oral sex, and anal sex. Sexually transmitted infections are found among people between 15 and 24 years; up to 60% of the new infections and half of all Sero-positive people globally are in this age group (Kejela & Soboka, 2015; CDC, 2013). Sexually transmitted Diseases (STD) are illnesses that have significant probability of transmission between human by means of sexual activities including vaginal intercourse, oral sex and anal sex. (STDs) are among the most frequent infectious diseases in the world. There are more than 30 sexually transmitted bacterial, viral and parasitic Diseases. These Diseases are spread through person-to-person sexual contact, from mother to child during pregnancy and childbirth and via blood products and tissue transfer. The most common Diseases are gonorrhea, chlamydial, syphilis, trichomoniasis, genital herpes, genital warts, and human immunodeficiency virus (HIV) and hepatitis B Diseases (Workowski & Berman, 2010). STD is a euphemism for venereal disease. STDs are among the most common causes of illness in the world and have far reaching health, social and economic consequences.

Knowledge of sexually transmitted infections and its complications is important in order to prevent transmission and promote early treatment. It has been observed that knowledge about STIs amongst secondary school students, information from most areas in Nigeria remains sketchy, and this has led to the exploratory behavior among adolescents as they do not have adequate knowledge about sexually transmitted infections. This could be the reason why the prevalence of sexually transmitted infection is on the increase. Mmbaga, Leyna, Mnyika and Klepp (2018) opine that the student knowledge of sexually transmitted infections are low although they are aware of them. Most students may not have knowledge of asymptomatic STDs, but might have little knowledge of others (Oladepo & Fayemi, 2011). Most students might not have the understanding that having multiple partners may increase the risk of acquiring STIs. As a result, they keep multiple sexual partners thereby increasing the risk of contracting one form of STD or the other. According to Masavkar and Naikwadi (2016) many STIs including Chlamydia, gonorrhea, hepatitis B, HIV can be vertically transmitted from mother to child. But many students may not have knowledge of this fact about STIs. Many young adults gain knowledge of sexual issues mostly through their mass media and their peers (Oladepo & Fayemi, 2011). It is important to utilize this to a public health advantage but it is not valued by most undergraduates. The Nigerian environment is clandestine about discussion of sex and related topics (Dienye, 2011). Most STDs are symptomless (asymptomatic) especially in women, as a result of that most carriers of STDs are not concerned about them due to inadequate knowledge of signs and symptoms of them and can be passed on during unprotected sexual intercourse (Samkange-Zeeb, Spallek & Zeeb, 2011). This may be the case of some secondary school students in Ogba/Egbema/Ndoni, and may fall prey to STDs as a result of inadequate knowledge which can lead to other reproductive health problems and other health challenges which may be detrimental to their adulthood.

Statement of the Problem

In Nigeria, sexually transmitted diseases are among the top five diseases for which child bearing age group and adult seek medical care. However, information with regard to awareness and perception towards STDs is limited in our country. Perhaps this is why adolescents engage



in risky sexual behaviours, high levels of unintended pregnancy and STDs (HIV inclusive). Nigeria has the second largest HIV epidemic in the world (NACA, 2017). All these are associated with low levels of awareness and poor perception of STDs.

Although the prevalence of STDs is lower in Nigeria, STDs cause life-threatening situations in recent years, because the majority of diseases are asymptomatic and also due to low awareness of this subject among a large part of society and inadequate educational level and increasing trend in unsafe sex practices among young people. The occurrence of more than 50% of new cases of HIV Diseases in those under the age of 25 shows that the needs of this group should be handled carefully.

STDs have a negative effect on sexual/reproductive health. Although many sexually transmitted Diseases are not fatal, they lead to complications of pregnancy, infertility, and deterioration of general health status, as well as play a role as a predisposing factor for transmission of HIV/AIDS Diseases. The young adults are usually at risk for STDs. STDs and lack of knowledge about the mode of transmission lead to a high rate of diseases in young people. Many young people obtain information on these issues from their friends, television and magazines. Despite all the problems and complications of STDs in the society only few studies have been done to enhance the knowledge and perception of young people. If more research works are on this area of adolescent's health, then their horizon can be broadened.

Information about STDs on the nature of disease, causative agent, mode of transmission, signs and symptoms, complications, prevention and control and treatment options; is supposed to be readily available for young age groups, in which sexual behaviors and health habits are begun to be shaped. This is important for them to identify and eliminate misconceptions about STDs and adopt healthy reproductive lifestyles at the same time prevent themselves from possible STDs and if eventually gets infected may seek proper curative measures and even prevent unintended pregnancies. When this happens young adolescent's reproductive health will become more productive and the risk of STDs (HIV/AIDS inclusive) will be reduced to a minimum level and as such making the adolescents and society free of STDs. Therefore, this study is initiated to improve knowledge and preventive behaviour of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State.

Aim of the Study

The focus of this study is to assess the knowledge and preventive behaviour towards sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State.

Research Questions

The following research questions were answered to achieve the aim of this study.

1. What is the knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?
2. What is the influence of gender on a student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?



3. What is the influence of age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?

Research Hypotheses

The following null hypothesis will be tested at 0.5 alpha level of significant to guide the study.

1. There is no significant influence of gender on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State.
2. There is no influence of age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State.

Research Design

The design for this study is a cross-sectional survey design.

Population for the Study: The population for the study consisted of all secondary school adolescents in Ogba- Egbema-Ndoni Local Government Area.

Sample and Sampling Techniques: The sample size for the study will consist of 405 secondary school students. The sample size was determined using Taro Yamane's formula for calculation of sample size.

$$S = N / (1 + Na^2)$$

Where S = sample size

N = population size

a = level of significance

This sample was arrived at by using multistage sampling technique.

Research Instrument: The instrument for data collection was the questionnaire designed by the researcher titled knowledge of sexually transmitted infection among secondary school students. **Reliability of the Instrument:** The instrument attained a reliability coefficient of 0.81.

Methods of data Analysis: Data collected from this study will be coded and analyzed using simple percentage (%), mean, chi-square, t-test



RESULTS

Research question 1: What is the knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?

Table 4.2: Knowledge of sexually transmitted infection among secondary school students in ONELGA

| Knowledge of STIs | Frequency | Percentage (%) |
|---|-----------|----------------|
| Ever heard about STIs | 370 | 93.0 |
| Types of STIs known by respondents | | |
| Gonorrhoea | 387 | 97.2 |
| Syphilis | 388 | 97.5 |
| HIV/AIDS | 398 | 100 |
| Hepatitis B | 365 | 91.7 |
| Chlamydia | 363 | 91.5 |
| Herpes | 364 | 91.5 |
| Routes of transmission | | |
| Sexual intercourse | 390 | 98.0 |
| Blood transfusion | 389 | 97.7 |
| Sharing needle | 358 | 89.9 |
| Sharing clothes | 286 | 71.9 |
| Sharing food | 293 | 73.6 |
| Mother-to-Child | 389 | 97.7 |
| Sign and symptoms of STIs | | |
| Abdominal pain | 382 | 96.0 |
| Discharge from penis | 383 | 96.2 |
| Itching in genital area | 390 | 98.0 |
| Burning pain on urination | 371 | 93.2 |
| Pain during intercourse | 381 | 95.7 |
| Genital ulcers or open sores | 350 | 87.9 |
| Swelling in genital area | 376 | 94.5 |
| Loss of weight | 375 | 94.2 |
| Weakness | 13 | 3.3 |
| Complications of untreated STIs | | |
| Infertility | 387 | 97.2 |
| Premature birth | 383 | 96.2 |
| Still birth | 379 | 95.2 |
| Ectopic pregnancy | 381 | 95.7 |
| Cervix cancer | 361 | 90.7 |

Table 4.2 showed the knowledge of sexually transmitted infection among secondary school students in ONELGA. Results showed that, majority 370(93.0%) have ever heard about STIs. the types of STIs known to the respondents were gonorrhoea 387(97.2%), syphilis 388(97.5%), HIV/AIDS 398(100%), Hepatitis B 365(91.7%), Chlamydia 363(91.5%) and Herpes 364(91.5%). Majority 390(98.0%) knew that sexual intercourse is the transmission route of STIs.



Hypothesis 1: There is no significant influence of gender on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?

Table 4.8: Summary of chi-square test on influence of gender on Knowledge of STIs among students

| Gender | Knowledge | | Total | df | X ² -value | p-value | Decision |
|--------|-----------|---------|----------|----|-----------------------|---------|----------|
| | Good | Poor | | | | | |
| Male | 157(90.2) | 17(9.8) | 174(100) | 1 | 0.018 | 0.894 | Accepted |
| Female | 203(90.6) | 21(9.4) | 224(100) | | | | |
| Total | 360(90.5) | 38(9.5) | 398(100) | | | | |

*Not significant. $p > 0.05$

Table 4.8 showed the summary of chi-square test on influence of gender on Knowledge of STIs among students. The result showed that there was no significant influence as the p-value of 0.894 was greater than the alpha level of 0.05 (X^2 -value = 0.018, df = 1, $p > 0.05$). Therefore, the null hypothesis which stated that there was no significant influence of gender on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State was accepted.

Hypothesis 2: There is no significant influence of age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State?

Table 4.9: Summary of chi-square test on influence of age on Knowledge of STIs among students

| Age | Knowledge | | Total | df | X ² -value | p-value | Decision |
|----------|-----------|----------|----------|----|-----------------------|---------|----------|
| | Good | Poor | | | | | |
| <14yrs | 232(92.4) | 19(7.6) | 251(100) | 1 | 3.079 | 0.079 | Accepted |
| 15-19yrs | 128(87.1) | 19(12.9) | 147(100) | | | | |
| Total | 360(90.5) | 38(9.5) | 398(100) | | | | |

*Not significant. $p > 0.05$

Table 4.9 showed the summary of chi-square test on influence of age on the Knowledge of STIs among students. The result showed that there was no significant influence as the p-value of 0.079 was greater than the alpha level of 0.05 (X^2 -value = 3.079, df = 1, $p > 0.05$). Therefore, the null hypothesis which stated that there was no significant influence of age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State was accepted.



DISCUSSION OF FINDINGS

The results in table 4.2 showed that, majority 370(93.0%) have ever heard about STIs. The types of STIs known to the respondents were gonorrhoea 387(97.2%), syphilis 388(97.5%), HIV/AIDS 398(100%), Hepatitis B 365(91.7%), Chlamydia 363(91.5%) and Herpes 364(91.5%). Majority 390(98.0%) knew that sexual intercourse is the transmission route of STIs. This implies that the student in Ogba/Egbema/Ndoni Local Government Area has a good knowledge of STDs. This may be attributed to the widespread use of technology, social media and schools. The results are in keeping with Ukwani et al (2013) that report high level of knowledge of STDs among secondary school students. Also, in line with the findings is study by Visalli et al (2014) where 74% and 60% of respondents gave correct answers about STDs. Also, in consonance with the study are findings of Al-Naggar and Al-Jashamy (2011) where 73% had knowledge of STDs and 65% knew causes of STDs. Also, in line with the study is Adeniyi and Okewole (2014) which reported that 93% of respondents had knowledge of STDs. Similarly, Fageeh (2008) reported that common sources of information about STDs were mass media and school.

However, at variance with the finding is study by Mashini et al (2014) which reported inadequate knowledge of STDs. Also, in contrast with the study is that of Mwanbete and Mtaturu (2006) which report poor knowledge of signs and symptoms of STDs. Also, in disagreement with the findings is study by Amu and Adegun (2015) which reported majorly fair and poor knowledge of STDs among respondents. Similarly, Hashini et al (2014) reported that only 41.1% of respondents were able to identify STDs correctly. Similarly, Sankange – Zeeb et al (2011) reported a low level of awareness and knowledge of STDs with exception of HIV/AIDS. Also, Zhang et al (2013) reported in their study that students had limited knowledge and awareness about common STDs, symptoms and complications. The variance in previous studies and the present study may be due to difference in sample and sampling size, research design and geographical location of the studies.

Influence of Gender Knowledge of STIs

The findings of the study revealed a non-significant influence of gender on knowledge of STDs (X^2 -value = 0.018, df = 1, $p > 0.05$). The findings of the study are in keeping with the findings of Oluyemi et al (2015) where gender showed no significant influence on knowledge of STDs. Also, in consonance with the findings is studies by Genz et al (2017) where 89.2% of girls and 90.3% have good knowledge of STDs. Also, in agreement is a study by Svensson and Waen (2013) which reported no major difference in gender and knowledge of STDs. However, the findings are in contrast with that of Nsuami et al (2010) which reported that knowledge score was significantly associated with female gender. The findings are also in variance with that of Jain et al (2016) where male had a better knowledge of STDs than females. Similarly, Samkange – Zeeb et al (2011) reported that awareness and knowledge of STDs varied among adolescents depending on gender. Also, Masaukar and Naikwadi (2016) reported that female students were more aware of STDs than male students. Fageeh (2008) also reported that 72% of respondents were aware of STDs with a higher percentage of males than females. The difference in results between previous studies and the present study may be due to the year in which they were carried out, geographical location and advancement in knowledge and technology.



Influence of Age Knowledge of STIs

The findings of the study showed a non-significant influence of age on knowledge of STDs. (X^2 -value = 3.079, $df = 1$, $p > 0.05$). This implies that there was no significant influence of age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State. In consonance with the findings are studies by Oluyemi et al (2015) which reported non-significant influence of age on knowledge of STDs. Similarly, Mwambete and Mtaturu (2006) discovered that older age was associated with knowledge of STI among students in Dares Salaam ($p < 0.001$). However, in contrast with the findings are studies carried out by Visalli et al (2014) which reported that younger people had a limited knowledge of STDs. Similarly, Masaukar and Naikwadi (2016) reported that older students were more aware of STDs than younger students. In the same vein, Anwer et al (2010) recorded a significant association between age and knowledge of STIs among students in Pulau Pinag ($P = 0.005$). The difference in results of the study may be attributed to the year in which other studies were carried out and advancement in learning and exposure to social media.

CONCLUSION

Conclusively, the result showed that the knowledge of sexually transmitted infection among secondary school students in ONELGA was high. There was no significant influence of gender and age on student's knowledge of sexually transmitted infection among secondary school students in Ogba/Egbema/Ndoni Local Government Area of Rivers State.

RECOMMENDATIONS

Based on the finding of this study, the following recommendations were made:

1. Health educators should mobilize resources and take measures to improve young people's awareness and knowledge about STIs prevention through educational training and guidance to maintain active and healthy lives.
2. Health care workers should intensify awareness campaign programmes on ways to identify situations that can increase susceptibility to STIs.
3. There is the need for future interventions by stakeholders to re-strategize behaviour change mechanisms to curb the spread of STIs among adolescents and youths.



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