Knowledge and Perception of Students towards Sexually Transmitted Infections in Secondary Schools in Anambra State

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ABSTRACT

Sexually Transmitted Infection is a world-wide issue in health, which tents to affect people of every tribe or race, irrespective of gender, class, or educational level. This study investigated the knowledge and perception of students towards Sexually Transmitted Infections in Anambra state. Four research questions were formulated to guide the study and four null hypotheses tested at 0.05 level of significance. The design for the study was descriptive survey. The study has a population of fifty eight thousand, eight hundred and fifty-two (58,852) students in all public senior secondary schools in Anambra state. A sample of three hundred and sixty-four (364) senior secondary students. Comprising of one hundred and eighty-two (182) male and one hundred and eighty-two (182) female students was obtained through disproportionate stratified random sampling technique. The instrument titled "Knowledge and Perception of Students towards Sexually Transmitted Infections in Secondary Schools (KPSSTIT)" was used for collection of data. The instrument was developed by the researcher. The data collected were analysed using mean and independent-sample ttest. The findings of the study among others indicate that: both male and female students of Anambra state have a moderate knowledge of signs and symptoms of sexually transmitted infections; their knowledge of modes of transmission of sexually transmitted infections is moderate; while the female students knowledge of the control measures of signs and symptoms of STI is very high compared to the male which is high. Similarly, the study also revealed that both male and female students of Anambra state have the right perception towards Sexually Transmitted Infections. Based on the findings and their implications, it was recommended among others, that there is need for the collective efforts of health counselors, school administrator and teachers to design programmes for secondary school students on the knowledge and perception STIs, to help the students avoid them.

INTRODUCTION

More than thirty different bacteria, viruses and parasites are known to be transmitted through sexual contact. Eight of these pathogens are linked to the greatest incidence of sexually transmitted infections. Of these eight infections, four are currently curable: syphilis, gonorrhea, Chlamydia and trichomoniasis. The others four are viral infections which are incurable: hepatitis B, Herpes Simplex Virus (HSV or herpes), HIV and Human Papillomavirus (HPV). Symptoms of these infections due to the incurable viral infections can be reduced or modified through treatment (World Health Organisation, 2019). People between the ages of 15 and 24 years acquire half of all new sexually transmitted infections, and one in four sexually active adolescent females has a sexually transmitted infection.

Sexually transmitted infections (STIs) are major health problem affecting mostly young people in both developed and developing countries. However, the prevalence has reportedly reached a stage that calls for stake holders' concern (World Health Organization, 2011). This is because, adolescents and secondary school students who are most at risk of contracting these infections form a greater proportion of the world population. In Nigeria, it is a serious problem because an estimated one-quarter of sexually active teenagers in the country are at risk (Yarber & Parrillo, 2012). Studies on reproductive health of adolescents in Nigeria indicates that many adolescents initiate sexual intercourse at an early age and engage in high risk sexual behaviours such as unprotected sex and multiple sexual partners which expose them to sexually transmitted infections, unwanted pregnancy and illegal abortion (UNAIDS, 2016). This can be explained from the level of information made available to people especially to adolescents whose sexual behaviours make them more prone to the diseases. Insufficient knowledge about STIs is a major impediment to successfully prevent the infections among adolescent populations in developing countries.

Sexually transmitted infection is any infection that is usually or often transmitted from person to person by direct sexual contact. It may also be transmitted from a mother to her child before or at birth or, less frequently, may be passed from person to person in non-sexual contact such as in kissing, in tainted blood transfusions, or in the use of unsanitized hypodermic syringes (Encyclopedia Britannica, 2018). In a similar thought, Mukherjee, (2017) averred that sexually transmitted infections are those infections caused by variety of organisms which are capable of being transmitted sexually. These infections usually affect initially the genitals, the reproductive tract, the urinary tract, the oral cavity, the anus, or the rectum, but may mature in the body to attack various organs and systems. Tertiary syphilis, or paresis, for example, may affect skin, the Central Nervous System, the heart, the liver, or other organs. Persons infected by an AIDS virus may remain outwardly healthy for years before it takes hold within the immune system. Sexually transmitted infections have a long history.

The sexually transmitted infection that caused perhaps the greatest alarm in the late 20th century was Acquired Immune Deficiency Syndrome, or AIDS. From the time of its first clear identification in 1981, AIDS spread rapidly, with reported cases rising at a high rate, especially among homosexuals and intravenous drug users in the United States and Western Europe and among heterosexuals in tropical Africa (Achalu, 2013). The high mortality rate from AIDS and the absence of a cure or vaccine against the infection had a sobering effect on sexually permissive societies. Another type of sexually transmitted infection is trichomoniasis, caused by a protozoan-Trichomonas vaginalis, which affects the urogenital tract. Males usually have no symptoms with this disease, and only a portion of infected females have a vaginal discharge. Candidiasis (yeast infection) is caused by Candida albicans (sometimes called Monilia albicans), which produces in women a thick, whitish vaginal discharge and causes irritation and itching in the genital area. Males may have irritation of the groins or skin of the penis. Because this yeast is ubiquitous in the environment, these infections are not always sexually acquired. Warts occurring in the genital areas are caused by certain types of papilloma viruses, and these types of warts can be transmitted to other people by sexual contact. Most often, genital warts are nothing more than a nuisance, but occasionally they can become so numerous or so large as to interfere with urination, bowel movements, or vaginal delivery. There is also mounting evidence that papilloma viral infections of the genital tract are a factor in the development of cancer of the cervix and possibly of the genitals.

The problem with most STIs is that they can occur symptom-free and can thus be passed on unaware during unprotected sexual intercourse. On an individual level, complications can include pelvic inflammatory diseases and possibly lead to ectopic pregnancies and infertility (Nicoll & Hamers, 2012). Female secondary school students are likely to have a higher risk of contracting an STI than their male counterparts as their partners are generally older and hence more likely to be infected (Stamm, Guinan & Johnson, 2013). The cervical lining in female adolescents and young women makes them more predisposed to STIs. According to Godeau & Gabhaim (2011), the risk is higher for female secondary school students as their cervical anatomic development is incomplete and especially vulnerable to infections by certain sexually transmitted pathogens. In addition, they may have problems getting the required information, services, and supplies they need to avoid it. They may also experience difficulties in accessing STI prevention services because they do not know where to find them, do not have transportation to get there, or cannot pay for the services. Even if they can obtain STI prevention services, they may not feel comfortable in places that are not youth friendly (Good, 2016). Untreated or poorly treated STIs are associated with a lot of complications. In males, gonorrhea as well as chlamydia and trachomatis infection causes epididymitis, which can result in infertility in the future. In addition, inflammatory urethral structure may arise from poorly treated gonococcal urethritis in the future. This may lead to urinary retention and possibly chronic renal failure if not properly managed. For the females, pelvic inflammatory disease can cause dyspareunia, infertility, chronic pelvic pain, increased risk of ectopic pregnancies, abortions, stillbirths, and perinatal and neonatal morbidities can occur, jeopardizing their future reproductive competences (Simms & Stephens, 2012).

It has been established that sexual promiscuity is on increase among adolescents and especially students but it will be nebulous to conclude that male students in secondary schools have better knowledge and perception towards sexually transmitted infections than their female counterparts. In this regard, the researcher will consider gender in this study. Hence, Webster (2012), indicated that perceptions around sexual behavior determine the intended sexual behavior of young people. He concluded in his study that most of young people did not believe that girls should remain a virgin and as such; they are naturally predisposed to sexually transmitted infections.

It is not certain whether secondary school students are knowledgeable or aware of STIs and also, whether they have right perception towards it. Upon this background, this study is poised to investigate and access knowledge and perception of students towards sexually transmitted infections in secondary schools, taking into account the high prevalence and ways to curb them. In the light of the above statement, the researcher is interested in investigating the knowledge and perception of secondary school students towards Sexually Transmitted Infections in Anambra state.

Statement of the Problem

Secondary school students are made up of boys and girls who are adolescents/teenagers between the ages of 10 and 20 years. Adolescents, especially those in secondary schools are likely to engage in risky sexual practices and this increase their chances of contacting sexually transmitted infections. It is no longer an old tale about the existence of sexually transmitted infections (STIs) as it used to be relegated as superstitious. Just like the popular slogan that 'AIDS is real', similarly, sexually transmitted infections abound but the problem is that adolescents and especially, secondary school students who indulge in sexual practices seem to have little or no knowledge of it and the right perception towards it. Young people are extremely at risk of acquiring and transmitting sexually transmitted infections because of their sexual behaviours. The excessive emphasis on sex in the media has contributed to sexual experimenting and adventurism among young people. In addition, young people are more likely to engage in risky sexual practices that increase their chances of the disease.

In a bid to explore and experiment on sex and its related activities, adolescents seemingly lurk in total ignorance of the existence, symptoms, modes of transmission, control and right perception towards sexually transmitted infections. However, ignorance, they said, is not an excuse to grave consequences of contacting STIs. Available data shows that sexually transmitted infections constitute medical, social and economic problems in Nigeria secondary schools, and this is not only prevalent in the urban centres but also in the rural areas. According to Mati (2015), STIs pose a major reproductive health burden on individuals, many of which include sores and bumps on the body, recurrent private sores on the private parts, generalised skin rash, pain during intercourse, scrotal pain, redness and swelling pelvic pain. Sexually transmitted infection is also associated with morbidity such as infertility, septic abortion, ectopic pregnancy, cervical cancer and increased risk of HIV/AIDS especially when a genital ulcer is present (Abudu & Odugbemi, 2015).

Considering the cases of sexually transmitted infections under treatment, some are undiagnosed. In spite of modern machines, STIs have become very difficult to control largely because people don't know the truth about them. The STIs, especially HIV is very deadly and a major global health problem. Some adolescents are not fully convinced that STIs, especially HIV/AIDS is real, this is due to the diverse purpose of the study. The orientation of their perception needs to be examined and established as a result of lack of knowledge on sexually transmitted infections, high sexual experimenting and adventurism among young people, complication problem occasioned by sexually transmitted diseases on students, and inability of the students to consult their doctor once they contract the disease. Hence, there is need to investigate the knowledge and perception of students towards sexually transmitted infections in secondary schools, in Anambra state

Purpose of the Study

The main purpose of the study is to determine the knowledge and perception of students towards Sexually Transmitted Infections in secondary schools, in Anambra state. Specifically, the study will seek to;

- 1. Determine the knowledge of the signs and symptoms of sexually transmitted infections among secondary school students in Anambra state based on their gender
- 2. Determine the knowledge of the modes of transmission of sexually transmitted infections among secondary school students in Anambra state based on their gender.
- 3. Determine the knowledge of the control measures of sexually transmitted infections among secondary school students in Anambra state based on their gender.
- 4. Determine the perception of students towards sexually transmitted infections among secondary school students in Anambra state based on their gender.

Significance of the Study

The findings of this study would benefit the students, teachers, parents, health educators, counsellors, Ministry of Education, society and future researchers.

The students would benefit from the study because, when they are exposed to the knowledge of sexually transmitted infection, it would enhance their knowledge, and when their perception is determined, it would help to modify their wrong perceptions. It will also inculcate in the students the dangers of pre-marital sex and other sexual behaviours which leads to the contraction of sexually transmitted infections. When published in journals, magazines or newsletters, the findings of this study will provide more information on the dangers of sexually transmitted infections so that they will be in a better position to modify any risk behaviour, gain more understanding of it, and prevent it to the best of their ability.

The findings of this study would benefit the teachers because they would know what the students know and what they do not know as regards to sexually transmitted infection, and also determine more areas they need to cover in the students'

curriculum. It will help teachers and school administrators to create strategies for promoting health education, educating and inculcating sound knowledge, based on the dangers of sexually transmitted infections, during teaching and learning.

The findings of the study would benefit the parents by the provision of useful and appropriate information while teaching their children on the issues of sexually transmitted infections, how better to identify them and possible ways of preventing them.

The result of this study would enable health educators to properly educate the students on sexually transmitted infections and throw more light on the areas of great concern. It could provide a data base which health educators would use as a guide in providing sex education to secondary school students and even undergraduates. This would help to reduce all sorts of sexually transmitted infections in the future, and also advice the government to provide sex education campaigns to young people.

Counsellors would use the findings to guide discussions with students in order to encourage students' right perception towards sexually transmitted infections and its prevention. On the basis of the findings, they can sensitize secondary school students on how to prevent the infections in the future, by organizing different programmes from time to time.

The findings of this study would benefit the government especially the Ministry of Education because it would help them to plan for an appropriate method and programme in order to educate the students properly on sexually transmitted infections.

The findings of this study will also be of importance to the society. Knowledge and right perception of sexually transmitted infections is of prime importance for healthy living. In order to live healthily, responsible and fulfilling lives, and protect themselves from reproduction health problems, young people need to be knowledgeable and have sound information about sexually transmitted infections, so as to be able to prevent them.

Finally, the findings of this study would benefit future research because this would add to the pool of research work done on sexually transmitted infections in order to guide them in their further studies.

Scope of the Study

The scope of this study covers the educational zones in Anambra state. The scope content includes; knowledge of sexually transmitted infections, knowledge on the signs and symptoms of sexually transmitted infections, knowledge on the modes of transmission and ways of controlling sexually transmitted infections, and the perception of students towards sexually transmitted infections.

Research Questions

The following research questions guided the study:

- 1. What is the knowledge of the signs and symptoms of sexually transmitted infections among secondary school students in Anambra state based on their gender?
- 2. What is the knowledge of the mode of transmission of sexually transmitted infections among secondary school students in Anambra state based on their gender?
- 3. What is the knowledge of the control measures of sexually transmitted infections among secondary school students in Anambra state based on their gender?
- 4. What is the perception of students towards sexually transmitted infections among secondary school students in Anambra state based on their gender?

Research Hypotheses

The following null hypotheses will be tested at 0.05 level of significance.

- 1. There is no significant difference in the mean knowledge of the signs and symptoms of sexually transmitted infections among secondary school students based on their gender.
- 2. There is no significant difference in the mean knowledge of the modes of transmission of sexually transmitted infections among secondary school students in Anambra state based on their gender.
- 3. There is no significant difference in the mean knowledge on the control measures of sexually transmitted infections among secondary school students in Anambra state based on their gender.
- 4. There is no significant difference in the perception of students towards sexually transmitted infections among secondary school students based on their gender.

Methods

Research Design

The design of the study was a descriptive survey research aimed at collecting data, specifically on the opinions, attitudes and views of the subjects on sexually transmitted infections. A descriptive survey according to Nworgu in Osegbo, Ifeakor, and Enemuo (2014), are those studies which aim at collecting data on, and describing in a systematic manner, the characteristics features or facts about a given population. To Crestel (2014), it involves gathering data that describes events and then organizes, depicts, and describes the 'what is' of the data collected without any manipulations. A descriptive survey study collects data from a sample of a population in order to ascertain their views, options and perceptions regarding a situation, issue, phenomenon or events mainly through questionnaire or personal interviews. This design is appropriate for this study because the study used a questionnaire to elicit information from a sample of secondary school students in Anambra state, with a view to determine their knowledge and perception of sexually transmitted infections.

Area of the Study

The study was conducted in Anambra state in Nigeria. Anambra state is one of the five states in the south-east geo-political zone in Nigeria, with a total land area of 4,844 sq. km. Anambra state is situated on a generally low elevation on the eastern side of river Niger and shares boundaries in the east with Enugu state, west with Delta state, south with Imo state, and north with Kogi state. The inhabitants of the state are mainly Christians. The people of Anambra state are mainly traders, public servants, entrepreneurs and artisans. There are twenty-one (21) local government areas in the state, three (3) senatorial districts (Anambra north, Anambra south and Anambra central) and six (6) education zones, which are Aguata, Awka, Ihiala, Nnewi, Ogidi and Onitsha. Awka and Ogidi educational zones are in Anambra north senatorial district, Nnewi and Aguata educational zones are in Anambra south senatorial district, while Onitsha and Otuocha educational zones are in Anambra central senatorial district. There are four hundred and thirty-five (435) secondary schools in Anambra state, two hundred and sixty-one (261) are owned by the state government, while one hundred and seventy-four (174) are private/missionary schools.

Population of the Study

The population of the study consists of fifty eight thousand, eight hundred and fifty-two (58,852) students in all public senior secondary schools in Anambra state. Only day students from public senior secondary schools were be used for the study. The choice of the day students as population is due to the fact that, they have an arranged activities after school and have more relationship with peers and friends, while activities have been organized and arranged for those in dormitory by school authority.

Sample and Sampling Technique

The sample size for this study is three hundred and sixty-four (364) senior secondary students. This comprised of one hundred and eighty-two (182) male and one hundred and eighty-two (182) female students that were obtained through disproportionate stratified random sampling technique. Akuezuilo and Agu (2013) explained that cluster sampling is used when the population to be sampled is vast and spread over a wide geographical area. In line with this, cluster sample was used to select three zones out of the six educational zones. The three zones comprised of Onitsha, Ogidi and Nnewi educational zones. In selecting students from the schools, the following steps were taken:

- 1. Simple random sampling was used to select three schools each from the three selected educational zones. This gave rise to nine schools.
- 2. In each of the nine schools, disproportionate random sampling was used to select sixty (40) senior secondary students (20 males and 20 females).

Instrument for Data Collection

The researcher constructed a knowledge test titled Knowledge and Perception of Students towards Sexually Transmitted Infections in Secondary Schools (KPSSTIT). The instrument is divided into two parts-part A and part B. Part A is on respondent's personal data like gender. Part B comprises 5 clusters. Cluster B_1 is on knowledge of signs and symptoms of some STIs with 59 items, cluster B_2 is knowledge of modes of transmission of the STIs with 10 items, cluster B_3 is on students' knowledge of control of STIs with 11 items, while cluster B_4 is on students' perception towards STIs with 13 items. The items are in checklist (where students are required to tick yes/no), except cluster B_4 , because they test on perception/cognitive test. Each of the sections has relevant items on the variables under investigation as opined in the research questions.

Presentation and Data Analysis Research Ouestion One

What is the knowledge of the signs and symptoms of sexually transmitted infections among secondary school students in Anambra State based on their gender?

Table 1: Mean and standard deviation scores on knowledge of the signs and symptoms of Sexually Transmitted Infections based on students' gender

Dependent Variable	Male (n=182)			Female (n=182)			
	Mean	SD	Remark	Mean	SD	Remark	
Knowledge of signs and symptoms of	64.40	10.34	Moderate	69.22	9.02	Moderate	
sexually transmitted Infections							

Table 1 above shows that the mean knowledge score on symptoms of sexually transmitted infections for male students was 64.40 and females' mean knowledge score was 69.22. Both male and female had a moderate knowledge of symptoms of sexually transmitted infections. However, there was a mean difference of 4.82 in favour of the female students.

Research Question Two

What is the knowledge of the mode of transmission of sexually transmitted infections among secondary school students in Anambra State based on their gender?

Table 2: Mean and standard deviation scores on knowledge of the modes of transmission of Sexually Transmitted Infections based on students' gender

Dependent Variable	Male (n=182)			Female (n=182)			
	Mean	SD	Remark	Mean	SD	Remark	
Knowledge of mode of transmission of	66.81	16.91	Moderate	69.34	17.10	Moderate	
Sexually Transmitted Infections							

The descriptive statistics in table 2 shows that the mean knowledge score on the modes of transmission of sexually transmitted infections for male students was 66.81 while that of the female students was 69.22. Both male and female had moderate knowledge of modes of transmission of sexually transmitted infections, but female students were 2.53 mean knowledge above the male students.

Research Question Three

What is the knowledge of the control measures of sexually transmitted infections among secondary school students in Anambra State based on their gender?

Table 3: Mean and standard deviation scores on knowledge of the control measures of Sexually Transmitted Infections based on students' gender

Dependent Variable		Male (n=182)			Female (n=182)			
	Mean	SD	Remark	Mean	SD	Remark		
Knowledge of control measures of	75.62	14.80	High	80.97	10.80	Very High		
Sexually Transmitted Infections								

As observed in Table 3, it shows that the mean knowledge score on the control measures of sexually transmitted infections for male students was 75.62 and that of the females was 80.97. The male student had high knowledge of the control measures of sexually transmitted infections while the female students had very high knowledge of the control measures of symptoms of sexually transmitted.

Research Question Four

What is the perception of students towards Sexually Transmitted Infections among secondary school students in Anambra State based on their gender?

Table 4: Mean perceptions of students on Sexually Transmitted Infections based on gender

S/N		Male			Female		
		Mean	SD	Remark	Mean	SD	Remark
81.	STIs can cause long term health issues like	3.76	0.56	Agree	3.66	0.85	Agree
	infertility and cancer						
82	One cannot get STI the first time of having sex	2.35	1.11	Disagree	2.17	1.21	Disagree
	(vaginal or oral sex) with a partner						
83	If one is sexually active with multiple partners, one	3.29	0.75	Agree	3.55	0.75	Agree
	should get routine STI testing						
84	Monogamy can reduce one's chance of infection	3.09	0.91	Agree	2.65	1.04	Agree
85	STI kills and should be seriously avoided	3.53	0.75	Agree	3.60	0.67	Agree
86	Intake of some drugs and alcohol can increase an	2.55	0.89	Agree	2.60	0.98	Agree
	individual's susceptibility of STIs						
87	STI makes one to be rejected by the family	2.72	1.03	Agree	2.15	1.02	Agree
88	People who have had STI are immune to getting	2.65	1.03	Agree	2.56	1.05	Agree
	that type of STI again						
89	STI can increase one's risk of acquiring another	3.35	0.78	Agree	2.92	.98	Agree
	STI such as HIV						
90	Having STI is a sign of promiscuity	2.96	0.97	Agree	2.43	0.90	Disagree
91	If left untreated, gonorrhea can turn into syphilis	3.25	0.87	Agree	2.96	0.77	Agree
92	More people have died from untreated syphilis than	2.98	1.06	Agree	3.08	0.83	Agree
	from AIDS						
93	Latex condoms greatly reduce the risk of	2.76	1.06	Agree	2.66	1.10	Agree
	contracting STIs including AIDS						

As shown by the mean responses in table 4 both male and female students had the right perception that: STIs can cause long terms health issues like infertility and cancer; sexually active with multiple partners should get routine STI testing; monogamy can reduce chances of infection; STI kills and should be seriously avoided; and intake of some drugs and alcohol can increase susceptibility to STIs. On the other hand, male and female students have wrong perception that: STI makes one to be rejected by the family; people who have had STI are immune to getting that type of STI again; STI can increase one's risk of acquiring another STI such as HIV; and untreated gonorrhea can turn into syphilis.

However, male and female students differ in their perception towards sexually transmitted infections as it relates to item 90. While male students perceive that "having STI is as a sign of promiscuity" (Mean = 2.96), female students disagreed (Mean = 2.43).

DISCUSSION OF THE FINDINGS

Findings from the study revealed that the knowledge of both male and female secondary school students in Anambra state, on the signs and symptoms of sexually transmitted infections is moderate. This means that their knowledge on the signs and symptoms of sexually transmitted infections is neither high or low (moderate). This finding is in line with Ukwenu, Ezeburo, Emuchay and Onwere (2013) whose findings revealed that students in Osisioma in Ngwa local government of Anambra state have a moderately good knowledge the prominent STDs such as gonorrhea, syphilis and HIV/AIDS. The reason for this may be because the studies were both carried out among secondary school students who are expected to possess the requisite knowledge related to sexually transmitted infections. These students, being in a learning environment, are likely to be exposed in teachings and counseling sections in schools, and this in turn, makes then to be able to avoid such infections. On the other hand, the findings is not in line with Amu and Adegun (2015), which revealed that only 6.9% of the respondents had good knowledge of STIs, the rest had fair and poor knowledge. The reason may be that it is not included into the school curriculum and media publicity/enlightenment campaigns.

Findings from the study also revealed that both male and female students have moderate knowledge of the modes of transmission of sexually transmitted infections, but the female students were 2.53 mean knowledge above the male students. What this means is that the female students' knowledge on the modes of transmission of STI is slightly higher than the males. This finding is in agreement with Visalli, Picerno, Vita, Spataro and Bertuccino (2014), whose study on the knowledge of sexually transmitted infections among younger subjects in the city of Messina, revealed that the students have better or moderate knowledge, but the percentage of humanistic schools (74%) is higher than that of technical schools (60).

The finding on the other hand is not totally in line with Elom, Ede-Mathias, Nwimo. Ilo, Nkwoka, Alegu and Ojide (2018), which revealed that secondary school students have high (73.0%) knowledge of STIs; males have 60.9% STI related knowledge than females - 39.1%. The reason for this might be that there is basic information on STIs provided to the students through in-class and out-of-class activities, to sustain the high knowledge.

Findings from the study shows that the male student of Anambra state have high knowledge of the control measures of sexually transmitted infections, while the female students of Anambra state have very high knowledge of the control measures of symptoms of sexually transmitted infections. This implies that the responses of male participants in this study is high but that of the female is higher. This is more than anticipated. The reason for this may be explained based on the fact that the participants are senior secondary school students, who are expected to possess a good knowledge on sexually transmitted infections. It is believed that these students might have been exposed to books, seminars or other sources of information about sexually transmitted infections/diseases. The findings is in line with Gupta and Khanal (2012), whose findings shows that more than 90% of students regarded the use of condoms as the true preventive method for STIs, thus having the knowledge of the control of STIs. On the other hand, it is totally in line with Okere (2016) whose study revealed that adolescents lack information on the mode of transmission and control of STIs including HIV&AIDS.

Furthermore, findings from the study revealed that both male and female students of Anambra state have the right perception that: STIs can cause long terms health issues like infertility and cancer; sexually active with multiple partners should get routine STI testing; monogamy can reduce chances of infection; STI kills and should be seriously avoided; and intake of some drugs and alcohol can increase susceptibility to STIs. Also, the findings shows that male and female students of Anambra state have wrong perception that: STI makes one to be rejected by the family; people who have had STI are immune to getting that type of STI again; STI can increase one's risk of acquiring another STI such as HIV; and untreated gonorrhea can turn into syphilis. The findings does not tally or agree with Alexandra and Lipi (2018), whose study shows that adolescent urban school students have wrong perception towards sexually transmitted infections.

Moreover, the findings from this study shows that male and female students differ significantly on their knowledge of signs and symptoms of sexually transmitted infections. This implies that there is a wide gap in the knowledge of signs and symptoms of STIs among male and female students. This finding is in line with Elom, et al (2018) whose findings also revealed that there is a gap in the participants' (male and female) responses. The reason for this may be ascribed to Ijezie (2012), who opined that the cervical lining in female adolescents and young women makes them more predisposed to STIs, and will be able to notice the symptoms. Hence, the male counterparts will notice no sign, but in rare cases, the symptoms take time to manifest.

The findings further revealed that female students' knowledge of the modes of transmission of sexually transmitted infections was not significantly greater than the knowledge of male students. This implies that the mode of transmission of STIs among secondary school students is the same irrespective of their gender. This finding is in line with Gupta and Khanal (2012), whose finding also revealed that about 86.66% of the respondents (both male and female) have the knowledge of the modes of transmission of STIs. The reason for this may not be far-fetched. STIs are current issues affecting the adolescents and youth in both developed and developing countries, and majority of them are aware of the possible modes of transmission.

From the findings, it revealed that female students' knowledge of the control measures of transmission of sexually transmitted infections was significantly greater than the knowledge of male students. The findings are not surprising as male and female differ biologically. More so, there is an underlying assumption that females are more exposed to STIs than males, hence their level of the knowledge of control measures differs.

Also, the findings revealed that male students' perception towards sexually transmitted infections was significantly greater than the perception of female students. This can be explained from the level of information made available to them, both in the school, at home or among their peers. The findings is in line with Alexandra and Lipi (2018) whose findings revealed that some respondents (30%) perceived that some STIs can be cured, some were confused about the use of pills or drugs in preventing the infection, which should be taken by married women.

CONCLUSION

Based on the findings of the study, it is concluded that both male and female students of Anambra state have a moderate knowledge of signs and symptoms of sexually transmitted infections. Also, both male and female students of Anambra state have moderate knowledge of modes of transmission of sexually transmitted infections, but female students were 2.53 mean

knowledge above the male students. The male student of Anambra state have high knowledge of the control measures of sexually transmitted infections, while the female students of Anambra state have very high knowledge of the control measures of symptoms of sexually transmitted infections.

Both male and female students of Anambra state have the right perception that: STIs can cause long terms health issues like infertility and cancer; sexually active with multiple partners should get routine STI testing; monogamy can reduce chances of infection; STI kills and should be seriously avoided; and intake of some drugs and alcohol can increase susceptibility to STIs. Also, the findings shows that male and female students of Anambra state have wrong perception that: STI makes one to be rejected by the family; people who have had STI are immune to getting that type of STI again; STI can increase one's risk of acquiring another STI such as HIV; and untreated gonorrhea can turn into syphilis. However, the findings shows that the male and female students of Anambra state differ in their perception towards sexually transmitted infections as it relates to item 90, while male students perceive that "having STI is as a sign of promiscuity" (mean = 2.96), female students disagreed (mean = 2.43). Similarly, the study revealed that male and female students differ significantly on their knowledge of sexually transmitted infections.

RECOMMENDATION

Based on the findings of the study, the following recommendations were made;

- 1. There is need for health counselors or workers to design programmes to create awareness in secondary schools on various STIs to help the students avoid them.
- 2. It is also recommended that seminars and workshops should be organized, awareness through pamphlets and leaflets to intensify effort in assisting the students know the dangers of sexually transmitted infections.
- 3. School administrators in secondary schools should organize seminars and workshops, where specialists in health education or public health education would serve as resource persons to address STIs issues among students.
- 4. More control methods for the STIs should be brought to the knowledge of the students by their teachers.

REFERENCES

- [1] Abudu, A., & Odugbemi, B. (2015). The coming of AIDS virus. Lagos: Olympic Press
- [2] Achalu, E. I. (2013). AIDS and other Sexually Transmitted Diseases: what everyone should know. Lagos: Simarch Nig. Ltd.
- [3] Achalu, E. I. (2016). AIDS: How to protect yourself and family, signs and symptoms. Lagos: Simarch Nig. Ltd.
- [4] Alexandra, M. & Lipi, D. (2018). Study of knowledge, perception and attitude of adolescent girls
- [5] towards STIs/HIV, safer sex and sex education: (A cross sectional survey of urban adolescents school girls in South Delhi, India). *BMC Women's Health*. 8:12.
- [6] Amu, E. O, & Adegun, P. T (2015). Awareness and knowledge of Sexually Transmitted
- [7] Infections among secondary school adolescents in Ado Ekiti, south western Nigeria. *Journal of Sexually Transmitted Diseases*. Article 10. 260126, 7 pages, http://doi.org/10.1155120151260126.
- [8] Britannica (2018). The new encyclopedia Britannica (4th ed Vol. 3) Chicago: Author.
- [9] Britannica (2019). *The New Encyclopedia Britannica* (5th ed Vol 3). Chicago: Author.
- [10] Crestel, J. W. (2014). An empirical review of research methodology and methods in creative studies. *Creative Research Journal*. 26 (4). Dx.dol.org/10/080/104
- [11] Elom, N. A., Ede-Mathias, U. M., Nwimo, I. O., Ilo, C. I., Nkwoka, J. I., Alegu, D. N., & Ojide,
- [12] R. N. (2018). Knowledge of Sexually Transmitted Infections among secondary school students in Ebonyi state, Nigeria. *Journal of Education and Practice*, 9 (32): online.
- [13] Godeau, E., Gabhainn, S. N. (2011). *Journal of psychology*. 162: 66-73.
- [14] Good, J. (2016). A search for unity in diversity: The permanent hegelian deposit: in the philosophy of John Dewey. Lexington Books. ISBN 978-0-7391-1061-4.
- [15] Gupta, S. & Khanal, T. R. (2012). Knowledge, behaviour and attitude towards Sexually
- [16] Transmitted Infections and Acquired Imminodeficiency Syndrome of Adolescents Students. *J Nepal Health Res Counc.* 2012 Apr. 9 (1):44-7.
- [17] Ijezie, J. N. (2012). *Overview of AIDS: women and adolescents*. A Guest lecture delivered at AIDS Awareness Workshop in Awka, Anambra State.
- [18] Mati, C. (2015). The Partner. New York: Academic Press.
- [19] National Policy on Education (2014). S5 (20) 5th Edition.
- [20] Nicoll, A., Hammers, F. F. (2012). Are trends in HIV, Gonorhoea and Syphillis worsening in Europe BMJ, 324, 1324-1327.

- [21] Okere, A. U. (2016). Knowledge of HIV/AIDS issues among in-school adolescents. *Journal of Educational Foundations (J & F)*. (3), 44-53.
- [22] Osegbo, I. E., Ifeakor, A. C. & Enemuo, J. O. (2014). Research Methodology in Education:
- [23] Basic Issues and Techniques. Onitsha: Folmech Printing and Publishing Company Limited.
- [24] Stamm, P., Guinan, M, Johnson, C. (2013). Effect of treatment regiment for Neisserie gonorrhea
- [25] on simultaneous infections with Chlamydia trachomatis. New English Journal of Medicine. 3(10):545-559.
- [26] Ukwuenu, A., Ezebuwo, U. F., Emuchay, N. K., Ibeh. C. C., Eluwa, J. C. R., & Onwere, S.
- [27] (2013).Knowledge of Sexually Transmitted Diseases among secondary school students on Osisioma Ngwa local government area, Abia state, Nigeria. *Journal of Health*. 8 (1).
- [28] Visalli, G., Picerno, I., Vita, G., Spatro. P., & Bertucco. M. P. (2014). Knowledge of Sexually
- [29] Transmitted Infections among younger subjects in the city of Messina. *Journal of Preventive Medicine and Hygiene*. 55 (1): 17-22.
- [30] Webstar, D. (2012). Perceptions of the body. Wikipedia.
- [31] Wenger, A. F. (2015). The disease called AIDS. American Health Psychology Magazine. 12. 205-211.
- [32] World Health Organisation (2011). Global prevalence and incidence of selected curable Sexually Transmitted Infections. WHO, Geneva.
- [33] World Health Organisation (2019). Global incidence of Sexually Transmitted Infections. WHO, Geneva.
- [34] Yarber, B., & Parrillo, G. (2012). Premarital sexual practices among the youths and hindrance to their adjustment. *CASSON Series* (1): 29-37.