# EXPLORING ATTITUDES TOWARDS SEXUALLY TRANSMITTED INFECTIONS AMONG FEMALE STUDENTS IN RIVERS STATE PUBLIC SECONDARY SCHOOLS

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**Abstract:** This study investigated the attitude towards sexually transmitted infections among female secondary school students in Rivers West Senatorial District, Rivers State. The descriptive research design was adopted. The population for the study consisted of sixteen thousand, six hundred and ninety-nine female senior secondary school students in Rivers West Senatorial District. A simple random sampling technique was adopted to select a sample size of 860. Data was collected using a structured questionnaire titled Attitude towards STI Questionnaire (APSQ) with a reliability index of 0.85. The data analysis was done with the aid of the Statistical Product for Service Solution (SPSS) version 23.0 using mean, standard deviation, T-test, and ANOVA at 0.05 level of significance. The result showed that the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District was positive (2.69±0.89). Based on age, positive attitude towards sexually transmitted infections was found more among the younger students who were aged: 15-19 years (2.79±0.91), followed by those aged 10-14 years  $(2.56\pm0.75)$ , and those aged 20-24 years  $(2.52\pm0.84)$ ; those in the urban areas  $(2.71\pm1.06)$ ; and those in JSS  $(2.67\pm0.86)$ . Based on the findings of the study, it was concluded that, female students in public secondary school in Rivers West Senatorial District had positive attitude towards sexually transmitted infections. It was recommended among others that the school authority in collaboration with the prefects should always organize a one-day compulsory orientation for all new students, where issues such as sexually transmitted infection will be deliberated upon.

Keywords: Attitude, Female, Infection, Sexual, Transmitted

#### Introduction

Sexually transmitted infections mostly affect sexually active individuals with risky sexual behaviour such as having multiple sexual partners, commencing sexual activities early and failure to use contraceptive (condom) to prevent infections. There is a wide spread prevalence of sexually transmitted infections. According to WHO (2019), more than 1 million STIs are acquired every day and it was estimated that there were over 376 million new infections, made up of Chlamydia (127 million), Gonorrhea (87 million), Syphilis (6.3 million), and

Trichomoniasis (156 million). More than 500 million people live with Genital HSV (Herpes) infection, and an estimated 300 million females have an HPV infection which is the primary cause of cervical cancer. A further evaluation by the organization suggests that 240 million people are living with chronic Hepatitis B globally. Besides, about 500 million people or more are estimated to have genital infections with herpes simplex virus (HSV), and more than 290 million women have a Human Papillomavirus (HPV) infection. In Nigeria, the Bridge Clinic (2019) noted that, the common STIs found in Nigeria are Chlamydia, Gonorrhea, and Syphilis. They usually present with the symptoms such as Painful Urination, Itching, burning, Inflamed genitals, and Genital discharge.

Young people are made to suffer the consequences of its contraction. WHO (2019) outlines some of the devastating effects of STIs as they can have severe consequences beyond the immediate impact of the infection itself: STIs such as herpes and syphilis can increase the risk of HIV acquisition three-fold or more: Mother-to-child transmission of STIs can result in stillbirth, neonatal death, low-birth-weight and Prematurity, Sepsis, Pneumonia, Neonatal Conjunctivitis, and Congenital Deformities. Data from WHO (2019) also reveals that, more than 30 different bacteria, viruses, and parasites are known to be transmitted through sexual contact. Eight of these pathogens are linked to the most significant incidence of sexually transmitted diseases (STDs). Of these eight infections, four are currently curable: Syphilis, Gonorrhea, Chlamydia, and

Trichomoniasis. The other four viral infections are not curable: Hepatitis B, Herpes Simplex Virus (HSV or Herpes), HIV, and Human Papillomavirus (HPV). However, according to the organization, symptoms or diseases due to these incurable viral infections can be reduced or modified through treatment, and further prevented through positive attitude.

Attitude influences several health behaviours including the prevention of STIs. Attitude can be referred to as a person's disposition or readiness to engage in a particular health behaviour. The American Psychological Association (2019) referred to attitude as a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude is something which keeps on changing according to our experiences. The more experiences we get, the more our attitude about certain things and events changes. The age of in-school adolescents could be an important factor influencing the prevention of sexually transmitted infections, particularly that many of them are at the adolescent stage.

Contraction of sexually transmitted infection can occur at any age but its prevalence is likely to differ significantly on certain age groups. Studies suggest that children, adolescents and young people are at unique risk because, they are not fully aware or acquainted with reproductive activities at that time and may not have enough strength or will power to make the right decisions. Ajuwon et al. (2011) noted that, secondary school students are not exempted in this respect because most of them fall within this age category; particularly those aged 10-19 years and, young females are disproportionately affected due to their relative inexperience, limited negotiation skills, dependent financial position and traditional gender norms.

In Rivers State, female students continue to account for a disproportionate percentage of new sexually transmitted infections due to their vulnerability in the society and gender issues.

Susceptibility of females to sexually transmitted infection is bothered by the female's reproductive structure (Oluwole et al., 2020). In the same vein, Magadi (2015) stated that, the peculiarity in the female's structure makes her 10-20 times more likely to get infected compared to her male counterparts. To buttress the above, the

reproductive role played by the females and the openness of their vagina could be implicated. Thus, they are expected to be more concerned about the prevention sexually transmitted infections, especially the secondary school students who may not be matured enough to seek appropriate healthcare thus, suffer the consequences which may deter their health and affect their academic achievement. Therefore, it becomes imperative to investigate the prevention of STIs among them. Based on this background, the researcher deemed it necessary to carry out this study on attitude towards sexually transmitted infections among female students in public secondary schools in Rivers West Senatorial District, Rivers State. The following research questions were answered:

- 1. What is the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District?
- 2. What is the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the age?
- 3. What is the attitude towards sexually transmitted infections among female students in public secondary schools in Rivers West Senatorial District based on the location (urban or rural)?
- 4. What is the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on class of study?

The following null hypotheses were stated to guide the study and were tested at 0.05 level of significance:

- 1. There is no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the age.
- 2. There is no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the location (urban or rural).
- 3. There is no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on class of study.

#### Methodology

The research design adopted for this study was a descriptive research design. The population for the study consisted of sixteen thousand, six hundred and ninety-nine (16,699) female senior secondary school students in Rivers West Senatorial District. The sample size for the study was 860 (430 urban and 430 rural). A simple sampling technique was adopted to select the sample for the study.

The instrument for data collection in this study was a structured questionnaire titled, "Attitude and Preventive Behaviour towards STI Questionnaire (APBSQ)", with a reliability coefficient of 0.85. The instrument consisted of three sections, A, B, and C. Section A addressed the sociodemographic characteristics of the respondents. It consisted of four items on a multiple response format which include; age, class of study, location and marital status, while section B, and C were designed to elicit responses respectively on attitude and behaviour towards the prevention of sexually transmitted infections on a modified four-point Likert scale of "strongly agree, agree, disagree and strongly disagree". The data collection instrument was administered to the respondents by a face-to-face delivery of the questionnaire to them. The data collected were coded for analysis, though some were lost at the point of retrieval, the few retrieved were extrapolated to make up the sample. The data analysis was done with the aid of the Statistical Product for Service Solution (SPSS) version 23.0, using mean, standard deviation, t-test and One-Way Analysis of Variance (ANOVA) at 0.05 level of significance and 95% confidence interval.

#### Results

The results of the study are shown below:

Table 1: Mean and standard deviation showing attitude towards sexually transmitted infections among female students in public secondary school in Rivers West (N = 810)

SN	Items	X	S.D	Decision		
1	Would not want to be infected with HIV or STI because	3.82	0.38	Positive		
they a	are deadly					
2	Would avoid anyone infected with HIV 3.60 0.71	Positive				
3	Would avoid anyone infected with STI	3.31	0.91	Positive		
4	People infected with HIV should not get married.	2.68	1.02	Positive		
5	People infected with STI should not go to school	2.22	0.86	Negative		
6	People with HIV should be kept out of school.	1.95	0.81	Negative		
	Willing to work with an AIDS patient.	2.22	0.9	8 Negative		
8	Would end friendship if a friend had HIV. 2.24 1.01	Negati	Negative			
9	Cannot not live with a family member who has HIV.	2.28	1.06	Negative		
10	Would seek medical help if infected with HIV. 3.48	0.77	Positive			
11	Would seek medical help if infected with STI.	3.60	0.82	Positive		
12	People with HIV should stay in a home or a hospital	2.31	0.98	Negative permanently		
CTI	Will buy foodstuff from someone infected with HIV or	2.11	0.9	0 Negative		
STI.	Will eat the meal cooked by an HIV-infected person.	2.28	0.9	5 Negative		
15	Will eat the meal cooked by an STI infected person.	2.24	1.03	Negative		
16	Can be in the same class as a student infected with HIV.	2.68	1.05	Negative		
17	Can be in the same class as a student infected with STI.	2.84	1.01	Negative		
	Grand mean	2.69	0.89	•		

**Decision:** Based on the criterion mean of 2.5; <2.5 = Negative while  $\ge 2.5$  = Positive attitude

Table 1 revealed the mean and standard deviation on the attitude towards sexually transmitted infections among female students in public secondary school. The result showed that the grand mean =  $2.69\pm0.89$  was greater than the criterion mean of 2.50 indicating a positive attitude. Thus, the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District was positive. However, negative attitude was found in some items: people infected with STI should not go to school ( $2.22\pm0.86$ ), people with HIV should stay in a home or a hospital permanently ( $2.31\pm0.98$ ).

**Decision:** Based on the criterion mean of 2.5; <2.5 = Negative while  $\ge 2.5$  = Positive attitude

Table 2 presents the mean and standard deviation showing age and attitude towards sexually transmitted infections among female students in public secondary school in Rivers West. The result showed that based on the grand mean, all age category had positive attitude towards sexually transmitted infections. However, good attitude towards sexually transmitted infections was found more among those who were aged: 15-19 years (2.79±0.91),

followed by those aged 10-14 years (2.56±0.75), and those aged 20-24 years (2.52±0.84). Thus based on age, positive attitude towards sexually transmitted infections was found more among the younger ones.

Table 2: Mean and standard deviation showing location and attitude towards sexually transmitted infections among female students in public secondary school in Rivers West

SN	Items	Rur	al	Urban	
		(N = 404)		(N = 406)	
		X	S.D.	X	S.D.
1	Would not want to be infected with HIV or STI because they are deadly	3.87	0.32	3.76	0.42
2	Would avoid anyone infected with HIV	3.62	0.62	3.57	0.78
3	Would avoid anyone infected with STI	3.43	0.70	3.18	1.07
4	People infected with HIV should not get married.	2.57	1.03	2.80	1.01
5	People infected with STI should not go to school	1.93	0.78	2.51	0.85
6	People with HIV should be kept out of school.	1.92	0.61	1.98	0.97
	Willing to work with an AIDS patient.	2.18	1.01	2.25	0.95
8	Would end friendship if a friend had HIV.	2.32	1.01	2.16	1.01
9	Cannot not live with a family member who has HIV.	2.30	1.05	2.27	1.08
10	Would seek medical help if infected with HIV.	3.21	0.93	3.76	0.42
11	Would seek medical help if infected with STI.	3.65	0.67	3.54	3.54
12	People with HIV should stay in a home or a hospital permanently.	2.37	0.83	2.24	1.11
Will b	buy foodstuff from someone infected with HIV 1.90 0.82	2.31	0.92 c	or STI.	
	Will eat the meal cooked by an HIV-infected person. 2.38	0.91	2.19	0.98	
15	Will eat the meal cooked by an STI infected person. 2.31	0.98	2.17	1.08	
16	Can be in the same class as a student infected with 2.63 1.13	2.74	0.95		
HIV.					
17	Can be in the same class as a student infected with 2.91 1.06	2.77	0.94		
STI.					
	Grand mean 2.67	<b>).85</b>	2.71	1.06	

**Decision:** Based on the criterion mean of 2.5; <2.5 = Negative while  $\ge 2.5$  = Positive attitude

Table 3 presents the mean and standard deviation showing location and attitude towards sexually transmitted infections among female students in public secondary school in Rivers West. The result showed that based on the grand mean, those in both rural and urban areas had positive attitude towards sexually transmitted infections. However, good attitude towards sexually transmitted infections was found more among those in the urban areas  $(2.71\pm1.06)$ , than those in the rural areas  $(2.67\pm0.85)$ . Thus, based on location, positive attitude towards sexually transmitted infections was found more among those in the urban areas.

Table 4: Mean and standard deviation showing class of study and attitude towards sexually <u>transmitted</u> infections among female students in public secondary school in Rivers West

SN	Items	JSS	1-3	SSS	SSS 1-3	
		(N = 399)		(N=411)		
		X	S.D.	X	S.D.	
1	Would not want to be infected with HIV or STI because they are deadly	3.81	0.38	3.82	0.37	
2	Would avoid anyone infected with HIV	3.62	0.67	3.57	0.74	
3	Would avoid anyone infected with STI	3.37	0.90	3.24	0.92	
4	People infected with HIV should not get married.	2.75	0.98	2.62	1.06	
5	People infected with STI should not go to school	2.24	0.84	2.20	0.89	
6	People with HIV should be kept out of school.	1.86	0.69	2.04	0.91	
	Willing to work with an AIDS patient.	2.21	0.96	2.22	1.01	
8	Would end friendship if a friend had HIV.	2.10	0.98	2.37	1.02	
9	Cannot not live with a family member who has HIV.	2.18	1.04	2.38	1.08	
10	Would seek medical help if infected with HIV.	3.54	0.66	3.43	0.87	
11	Would seek medical help if infected with STI.	3.54	0.88	2.65	0.76	
12	People with HIV should stay in a home or a hospital permanently.	2.15	0.91	2.46	1.02	
Will b	uy foodstuff from someone infected with HIV or 2.07 0.86	2.14	0.93 \$	STI.		
	Will eat the meal cooked by an HIV-infected person. 2.19	0.89	2.38	1.01		
15	Will eat the meal cooked by an STI infected person. 2.21	1.07	2.27	1.00		
16 HIV.	Can be in the same class as a student infected with 2.76 0.99	2.61	1.09			
17 STI.	Can be in the same class as a student infected with 2.91 0.95	2.77	1.06			
	Grand mean 2.67	0.86	2.65	0.92		

**Decision:** Based on the criterion mean of 2.5; <2.5 = Negative while  $\ge 2.5$  = Positive attitude

Table 4 presents the mean and standard deviation showing class of study and attitude towards sexually transmitted infections among female students in public secondary school in Rivers West. The result showed that based on the grand mean, those in both JSSS and SSS had positive attitude towards sexually transmitted infections. However, positive attitude towards sexually transmitted infections was found more among those in JSS  $(2.67\pm0.92)$ . Thus, based on class of study, positive attitude towards sexually transmitted infections was found more among those in the junior secondary.

Table 5: Analysis of Variance (ANOVA) showing significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on age

Sources of variance	Sum of squares	df	Mean sum	ofF-value	p-value	Decision
			squares			
Between group	1.430	2	0.71	0.67	0.51*	H <sub>o</sub> Not
Within group	856.17	807	1.06			Rejected
Total	857.60	809				

<sup>\*</sup>Not Significant. p>0.05

Table 5 shows the One-Way ANOVA of difference in attitude towards sexually transmitted infections based on age of female students. The findings of this study shows that there was no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on age [F(2, 807) = 0.67; p>0.05]. Therefore, the null hypothesis which states that there is no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the age was not rejected.

Table 6: t-test result showing difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the location

Group	N	Mean	SD	df	t-cal	p-value	Decision
Rural	404	2.57	1.03	808	3.17	0.00*	H <sub>o</sub> Rejected
Urban	406	2.80	1.01				

<sup>\*</sup>Significant; p<0.05

Table 6 showed the t-test summary of the significant difference in attitude towards sexually transmitted infections based on location of female students. The result of the study showed that there was a significant difference in attitude towards sexually transmitted infections based on location (t-cal = 3.17, df = 808, p<0.05). Therefore, the null hypothesis which stated that there is no significant difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the location was rejected.

Table 7: t-test result showing difference in attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District based on the class of study

Group	N	Mean	SD	df	t-cal	p-value	Decision
JSS 1-3	399	2.75	0.98	808	1.92	0.06*	Ho Not Rejected
SSS 1-3	411	2.62	1.06				

<sup>\*</sup>Not Significant; p>0.05

Table 7 showed the t-test summary of the significant difference in attitude towards sexually transmitted infections based on class of study. The result of the study showed that there was no significant difference in attitude towards sexually transmitted infections based on class of study. (t-cal = 1.92, df = 808, p>0.05). Therefore, the null hypothesis which stated that there is no significant difference in attitude towards sexually transmitted infections

among female students in public secondary school in Rivers West Senatorial District based on the class of study was not rejected.

# **Discussion of findings**

The findings of the study are discussed below:

The result showed that the attitude towards sexually transmitted infections among female students in public secondary school in Rivers West Senatorial District was positive (2.69±0.89). This finding may not be surprising because the respondents are students who are exposed to knowledge and may be acquainted with the dangers of sexually transmitted infections thus, they exhibit positive attitude towards sexually transmitted infections. The study's finding of this study is in consonance with that of Xu et al. (2019) whose study on sexual attitudes, sexual behaviors, and use of HIV prevention services among male undergraduate students in Hunan, China, showed that the study respondents had a positive attitude towards the preventive measures towards HIV/STIs. The similarity found between the two studies might be because the study populations had similar characteristics as both studies were conducted among students and the sample sizes used in both studies were in a very close range. Hence, the similarities between the previous study and the present one. The result of this study is in keeping with that of Zhang et al. (2015), whose study among Chinese students showed a positive attitude towards preventing STIs. The homogeneity of the study population might be implicated for the similarity found between the two studies. The finding of this study gives credence to that of Oluwole et al. (2020) whose study among unmarried youths in Lagos State, Nigeria, showed a positive attitude towards sexually transmitted infections. This similarity between the present study and that of Oluwole and colleagues could be explained by the similarities in the study respondents' characteristics. Since both studies were conducted among youths, this might be implicated in the similarity between the two studies. On the other hand, the result of the present study differs from that of Subbarao and Akhilesh (2017) whose study on attitude about sexually transmitted infections other than HIV among college students in India revealed respondents' negative attitudes towards HIV/STIs. Also, this study's findings were found to be in contrast with that of Ugwu et al. (2015) whose study on preventive lifestyle against HIV/AIDS among students of a tertiary educational institution in South Eastern Nigeria showed negative attitude towards the prevention of sexually transmitted infections among the students. The difference between the two studies might be due to the variations in the study locations as the previous study was conducted in the South-Eastern part of Nigeria, whereas the present study was carried out in the South Southern part of the same country.

The finding of the study showed that based on age, positive attitude towards sexually transmitted infections was found more among the younger ones; those who were aged: 15-19 years (2.79±0.91), followed by those aged 10-14 years (2.56±0.75), and those aged 20-24 years (2.52±0.84). This finding might be explained by the fact that the younger ones who see themselves to be immature and may be afraid of engaging in sexual activities often. This study's finding is in line with that of Ugwu et al. (2015) whose study on preventive lifestyle against HIV/AIDS among students of a tertiary educational institution in South Eastern Nigeria showed variations in respondents' attitude towards HIV infection with a mean age of 23.6±2years. The population's similarity in terms of being students in both studies might be implicated for this similarity found between the two studies. The findings of this study is also in agreement with that of Adera et al. (2015), whose study among students in Ethiopia showed expression of negative attitude towards HIV/STIs, with a majority of them being in the age group of 15-19 years. The finding of this study is also in line with that of Adera et al. (2015) whose study on the attitude and

practice of students towards sexual transmitted infection in Haile Mariam Mamo preparatory school Debre Birhan, Ethiopia showed positive attitude among the younger students. The similarity found between the previous studies and the present one might be due to the homogeneity of the study respondents.

The result of this study indicates that positive attitude towards sexually transmitted infections was found more among those in the urban areas (2.71±1.06), than those in the rural areas (2.67±0.85). This finding is not surprising because the features in urban areas places the students in such areas a better privilege of accessing and adopting healthy lives, hence their positive attitude towards sexually transmitted infections. The finding of this study is in line with that of Sharma and Sherkhane (2017) whose study on attitude about sexually transmitted infections among women in reproductive age group residing in the urban showed positive attitude towards sexually transmitted infections. The findings of this study is also in line with that of Osanyin et al. (2020) whose study on attitude and preventive practices of sexually transmitted infections among unmarried youth in an urban community in Lagos State, Nigeria showed positive attitude towards sexually transmitted infections. The similarity found between the previous studies and the present one might be due to the homogeneity of the study respondents.

The result of this study indicates that good attitude towards sexually transmitted infections was found more among those in JSS  $(2.67\pm0.86)$ , than those in SSS  $(2.65\pm0.92)$ . The finding of this study is in keeping with that of Anwar et al. (2015), whose study on sexually transmitted infections

(STIs) and students' sexual behavior conducted in Pulau Pinang, Malaysia showed that practice towards the prevention of HIV/STIs such as sexual behaviour was statistically significant based on educational level (p<0.05). This similarity found might be due to the similarity in the study population's characteristics in both studies as they were both focused on students. This study's finding is also in consonance with that of Xu et al. (2019) whose study on sexual attitudes, sexual behaviors, and use of HIV prevention services among male undergraduate students in Hunan, China which showed the practice of preventive measures towards HIV/STIs to be statistically significant based on the level of study. The similarity found between the two studies might be because the study populations had similar characteristics as both studies were conducted among students and the sample sizes used in both studies were in a very close range.

#### Conclusion

Based on the findings of the study, it was concluded that, female students in public secondary school in Rivers West Senatorial District had positive attitude towards sexually transmitted infections.

#### Recommendations

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

- 1. The school authority in collaboration with the prefects should always organize a one-day compulsory orientation for all new students, where issues such as sexually transmitted infection will be deliberated upon, this may help to influence students' attitude positively. 2. The secondary school management should put a limit in age, for female students, at least 18 years, and strictly punish any under-aged female student who engage in sexual activities that can make them contract sexually transmitted infections.
- 3. The ministry of education should collaborate with the ministry of health to reach out to students in rural areas as well as urban areas through campaign and sensitization about the prevention of sexually transmitted infections.

4. Curriculum developers should consider the age of female secondary school when drafting sex education content for students, and ensure such education starts right from JSS 1.

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