

Original Article

Assessment of Knowledge, Attitude and Prevalence of Sexually Transmitted Infections Among Young Undergraduate Students in a Nigerian Tertiary Institution in South-South Nigeria

Asogun DA¹, Efegbere, HA²¹ Department of Community Medicine, Irrua Specialist Hospital, Edo State, Nigeria.² Department of Community Medicine, Edo State University Uzairue, Edo State, Nigeria.

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*Correspondence: Efegbere HA.

Email: henryefegbere@gmail.com

ABSTRACT

Globally over 40 million people are estimated to be living with sexually transmitted infections (STIs), including HIV/AIDS. The objective of this study was to assess the knowledge, attitude and prevalence of sexually transmitted infections among young undergraduate students in a Nigerian tertiary institution. Descriptive cross-sectional study and multistage sampling technique were used to get data from 210 respondents who were young adults in Auchi polytechnic. Questionnaires were self-administered to collect data on sexually transmitted infections. The data was analyzed using Statistical Package for Social Sciences (SPSS) 26th version and the results were presented. Statistical significance of $p < 0.05$ and confidence limit of 95% was used. Majority of respondents, 120 (57.1%) were female. Majority of respondents 180 (86%) possessed good knowledge on STIs. Majority of respondents had good attitude towards STI 202 (96%). The estimated prevalence was gonorrhea 29(38.0%), syphilis 14(18.0%), among others. Knowledge and attitude was statistically significantly associated ($p < 0.001$). Drug, alcohol and sex with commercial sex workers the association was found to be statistically significant ($p < 0.001$). Conclusively, the majority of the respondents were sexually active, with the larger proportion starting sexual activity at a young age and a high prevalence of sexual intercourse. The majority of the respondents were aware of STIs and had a good knowledge score and attitude towards STIs, however a sizable number of the respondents had multiple sexual partners which could invariably increase the prevalence of STIs, therefore there is need for STI interventions targeted to young adults and students in tertiary institutions.

Keywords: Attitude; Knowledge; Nigerian Tertiary Institution; Prevalence ; Sexually Transmitted Infections; Young Undergraduate Students

INTRODUCTION

Sexually transmitted infections (STIs), are infections that are passed from one person to another through sexual contact.¹⁻³ Although most individuals are aware of HIV/AIDS as a result of media and government effort understanding of other

sexually transmitted infections (STIs) is low in developing nations where STI treatment is less accessible.⁴⁻⁹ A cross sectional descriptive study done among college students in the University of Connecticut, USA in 2019 showed that the study participants who had previously undergone sexual education courses had higher knowledge scores.¹⁰⁻¹⁴

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It did, however, demonstrate a dearth of information of STIs among young adults, as well as the need for educational initiatives among college students to improve their understanding their understanding of STIs etiology and prevention. In a similar way a study carried out in 2020 in Osun state, Ikeji-Arakeji, Oriade Local government, South-Western Nigeria also stated that of 341 participants in the study Male-Female distributions were 46.3% and 53.7% respectively and about 97% of the respondents knew about STIs.¹⁵⁻¹⁷ The media/magazine was the most common source of STI information, accounting for more than half of all replies (57%) on sources of STI information, closely followed by friends (31%).

Predisposing factors of STIs increase the likelihood of sexually transmitted infections in young adults and pose a significant risk, according to a 2017 study by Themba et al.¹⁸⁻²⁰

Centers for Disease Control and Prevention (CDC) 2020²¹⁻²⁴ revealed that prevalence rates of certain STIs are highest among adolescents and young adults. Persons who initiate sex early in adolescence are at higher risk for STIs. A study conducted in a secondary school in Ado Ekiti in 2015 by Adegun^{25,26} with more than 75% of the respondents knew the modes of transmission of STIs.

The objective of this study was to assess knowledge, attitude & prevalence of sexually transmitted infections among young undergraduate students in a Nigerian tertiary institution in Auchi, Edo State. The justification for this study was that there were gaps in information on knowledge, attitude and prevalence of sexually transmitted infections among young undergraduate students in a Nigerian tertiary institution in Auchi, Edo State. Therefore the findings of this study will address the gaps when published for global assess and referencing in research and interventions globally.

MATERIALS AND METHODS

Study Area

The study area was Auchi community . Auchi polytechnic is a Federal Polytechnic in Auchi, Edo State, Nigeria. It is one of the first four Polytechnics established in Nigeria, founded in 1963, first as a

technical college which was a gift of the British government to the then Midwestern Region. It has over 10,000 students enrolled in business, applied sciences, technology, environmental and arts courses. The Institution is made up of Six faculties which are: Faculties of Art & Industrial design, business studies, applied science & technology, engineering, environmental studies, information & communication technology and well over 28 departments.

Study Population

Undergraduate students in Auchi Polytechnic Institution, Auchi, Edo State.

Study Design

A cross sectional descriptive design was deployed in this study.

Duration of Study

The duration of this study spanned for a period of 4 months after obtaining ethical approval from March to June 2022.

Selection Criteria

Young Students (male and female) between age groups 15-26 yrs were recruited for the study.

Those excluded from the study were fresh students or new students because it is assumed that they are not yet established in the Polytechnic system, those too ill to answer questions, those with difficulty in hearing or visual defect, as well as students not around at the time of administration of questionnaire and post graduate students of Auchi Polytechnic Auchi.

Sample Size Estimation

Sample size was estimated using Cochran's formula for cross sectional surveys.

$$\text{Sample size } n = \frac{Z^2 Pq}{d^2} = \dots\dots\dots$$

n = Minimum Sample size

Z = Standard normal deviation set at 1.96 to correspond to 95% confidence interval.

P = highest Prevalence of the condition under study from previous studies.

q = 1-P

d = Degree of precision at a confidence level of 95% (Error margin allowed from study which is a measure of level of accuracy).

For this study;

$$Z = 1.96$$

P = 85.7% = 0.857 (highest prevalence from literature review)²⁷

$$d = 0.05$$

From the formula; $n = \frac{Z^2 Pq}{d^2}$

$$n = \frac{(1.96)^2 \times 0.857 \times (1-0.857)}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.857 \times 0.143}{0.0025} = \frac{0.4514337}{0.0025}$$

$$n = 188.31$$

From the calculation above, the estimated sample size was 188.31

Attrition or non-response rate = 10% of sample size

Calculated sample size

$$\frac{1 - \text{non respondent rate}}{= 209.23}$$

Thus, study sample size of 210 respondents were recruited for this study.

Sampling Method

A multistage sampling was employed to recruit 210 undergraduate students as respondents for the study. First stage was systematic random sampling technique used to select three out of the six faculties that make up the institution. The next stage, a list of the departments in each of the three selected faculties was obtained from the Institution central record processing unit (CRPU), and numbers were allocated to each department. Then a selection of the level of study was conducted by simple random sampling method. Fresh students or new intakes were excluded because it is assumed that they were not yet established in the Polytechnic system, hence not knowledgeable to provide responses to questionnaires.

Study Instrument

Questionnaire: structured questionnaire which was adopted from studies on Knowledge, Attitude and prevalence of STIs among the University students attitude and survey of risky behaviours among high school and university students. The questions were in simple English language, short and direct to prevent misunderstanding.

Pre-Testing

About 20 of the questionnaires were pretested at a similar location to ensure the questionnaire were easy to understand and interpret, and also ensure the accuracy and validity of the study. After the pretesting, errors observed were corrected.

Data Collection and Analysis

Data was collected using a pre-tested administered questionnaire to elicit socio-demographics, assess young undergraduate students knowledge, attitude and prevalence on sexually transmitted infections.

Statistical analysis

The data was analyzed using the Statistical Package for Social Sciences (SPSS) 26th version (SPSS Inc, Chicago, USA) and the results were presented in form of numerical and diagrammatic presentations. A Chi square test was used to describe the association between variables.

Dependent Variable: Knowledge, attitude and prevalence of STIs.

Independent Variable: Socio-demographics (Age, gender, ethnicity, level of education, religion)

Level of statistical significance: 0.05 or 5% . Statistical significance test to assess association of variables deployed was Chisquare-test.

Scoring of variables

Scoring system was used to assess the prevalence of STIs among young undergraduate students in Auchi Polytechnic.

A) Knowledge was assessed by assigning scores to the respondents with 1 representing a positive response and 0 representing a negative response. The total score was converted to percentages and grouped as poor knowledge <50%, average between 50-74.9% and good knowledge to be 75% and above.

B) Attitude of respondents towards STIs: a score of 1 was given for a positive response while 0 represents a negative response. The total score was converted to percentages and grouped as poor attitude < 50%, average attitude between 50-74.9% and good attitude to be 75% and above.

C) Associated factors of respondents was assessed using a score of 1 representing a positive response while 0 represents a negative response. The total score was converted to percentages and grouped as poor attitude < 50%, average attitude between 50-74.9% and good attitude to be 75% and above.

D) Association between socio-demographic variables and STIs was assessed using tables and percentages allocated to each variable and the level of prevalence of STIs.

Ethical Consideration

Ethical approval for the study was obtained from the Irrua Specialist Teaching Hospital (ISTH) Health Research Ethics committee (HREC). Confidentiality of information and anonymity of respondents ensured.

RESULTS

A total of 210 respondents participated in the study with 100% return rate of questionnaires. The results were presented in sections as follows:

Tables 1a and 1b shows the socio-demographic and proximate characteristics of the respondents. The mean SD age of the respondents was 22.4 ± 3.0 years.

Table 2 revealed that, overall, the knowledge of STIs among the respondents was

very high—180 (85.7%).

Table 3 showed the prevalence of sexual intercourse among the studied population was found to be 75.7%, in comparison to 51 (24.3%) who had not had sexual intercourse.

Table 4 revealed that 200 (95.2%) of the total respondents agreed that screening for STIs is good, 5 (2.4%) disagreed while 5 (2.4%) did not know about the screening for STIs.

Table 5 showed the prevalence of a positive test for STIs among the respondents was found to be 37.1%.

Table 5b revealed drug use, alcohol and sex with

commercial sex workers the association was found to be statistically significant ($p < 0.001$).

Table 6 showed slight higher proportion of females with good knowledge (87.5%) compared with males with good knowledge (83.3%).

Table 7a showed The highest proportion (97.7%) of individuals with good attitude were aged 19 – 22 year old.

Table 7b revealed Of the 180 respondents with good knowledge, 3 (1.7%) had poor attitude; while a higher proportion 5 (16.7%) of the 30 respondents who have poor knowledge had poor attitude; Knowledge and attitude was statistically significantly associated ($p < 0.001$).

Table 8 showed thirteen (48.1%) of the respondents aged 15-18 years old have had STIs .

Table 1a: Socio-demographic characteristics of the respondents

Variables	Frequency (n=210)	Percent %
Age group (years)		
15 -18	27	12.9
19 -22	86	41.0
22 -26	70	33.3
≥26	27	12.9
Sex		
Male	90	42.9
Female	120	57.1
Marital Status		
Single	192	91.4
Married	17	8.1
Divorced	1	0.5
Ethnicity		
Etsako	55	26.2
Igbo	47	22.4
Benin	36	17.1
Esan	28	13.3
Yoruba	16	7.6
Owan	9	4.3
Urhobo	7	3.3
Ijaw/Itsekiri	5	2.4
Hausa	3	1.4
Akoko Edo	1	0.5
Ukwani	1	0.5
Calabar	1	0.5
Akwa Ibom	1	0.5
Religion		
Christianity	181	86.2
Islam	22	10.5
ATR	2	1.0
Others	5	2.4
Faculty		
ICT	104	49.5
Engineering	30	14.3

Table 1b:Socio-demographic characteristics of the respondents

Variables	Frequency (n=210)	Percent % 10)
Art	22	10.5
Level of study		
ND2	26	12.4
HND1	68	32.4
HND1	116	55.2
Respondents current residence		
Parents/family	140	66.7
By Myself	65	31.0
Spouse	5	2.4

Mean age $\pm$ SD of respondents= 22.4 $\pm$ 3.0 years ICT=Information and communication Technology, ATR = African traditional religion, Others =Jehovah's Witnesses (JW), Atheists, etc.

Table 2: Knowledge of sexually transmitted infections among the respondents

Variables	Frequency	Percent%
Awareness of STIs	(n=210)	
Yes	205	97.6
No	5	2.4
Known STIs*	(n=205)	
Gonorrhea	173	82.4
Syphilis	154	73.3
Staphylococcus	105	50.0
HIV/AIDS	202	96.2
Hepatitis B	103	49.0
Chlamydia	63	30.0
Herpes	85	40.5
Hepatitis C	3	1.4
STIs routes of transmission*		
Unprotected sexual intercourse	205	97.6
Blood transfusion	90	42.9
Multiple sexual partners	174	82.9
Sharing sharp objects	71	33.8
MTCT	66	31.4
Sharing same toilet	18	8.6
Possible causes of STI*		
Bacteria	81	38.6
Virus	58	27.6
Multiple sexual partners	185	88.1
Using unclean water	18	8.6
Sex during menstruation	36	17.1
Having sex soon after giving birth	20	9.5
Blood transfusion	68	32.4
Information received on STI*		
Friends/family	15	7.1
Television/radio	40	19.0
Internet	30	14.3
Hospital/clinics	106	50.5
School/college	19	9.1
Signs/symptoms of STI*		
Abdominal pain	70	33.3
Discharge from penis/vulva	150	71.4
Itching genitals	146	69.5
Burning pain on urination	118	56.2
Pain during intercourse	67	31.9
Genital Ulcers	55	26.2
Loss of weight	45	21.4
Blood in urine	26	12.4
Failure to urinate	2	1.0
Swelling genitals	32	15.8
Don't know	2	1.0
Level of Knowledge of STI		
Good	180	85.7
Poor	30	14.3

Multiple responses, MTCT= Mother to child transmission

Table 3: Prevalence of sexual practices among the respondents

Variables	Frequency	Percent%
Had sex (<i>n</i> = 210)		
Yes	159	75.7
No	51	24.3
Age at first sex (Years) (<i>n</i> = 159)		
≤14	8	5.0
15-19	99	62.1
20-24	45	28.0
≥25	7	4.9
Number of sexual partners		
0	51	24.3
1	69	32.1
2	55	26.9
≥ 3	35	16.7
Condom use with regular partners		
Yes	89	42.0
No	125	58.0
Sex with only one Partner over past 12 months (<i>n</i>=159)		
Yes	75	47.0
No	84	53.0

Respondents mean (±SD)age of sexual debut (years) = 18.40 ± 3.0

Table 4: Attitude towards STIs among respondents

Variables	Frequency	Percent%
Screening for STI is good	<i>n</i> = 210)	
Agree	200	95.2
Disagree	5	2.4
Don't Know	5	2.4
STIs are not dangerous because they can be cured		
Agree	104	49.5
Disagree	103	49.0
Don't Know	3	1.4
Infected people with STI must get treatment		
Yes	208	99.0
No	2	1.0
Are there treatments to cure STIs		
Yes	188	89.5
No	10	4.8
Don't know	12	5.7
How worried are you to catch an STI		
Not worried at all	79	37.6
Worried a little	79	37.6
Worried a lot	50	23.8
Don't Know	2	1.0
STIs can cause death if left untreated		
Yes	165	78.6
No	27	12.9
Don't know	18	8.6

Table 5a: Prevalence of STIs among respondents

Variables	Frequency	Percent%
Positive test for STI	<i>n = 210</i>	
Yes	78	37.1
No	132	62.9
	<i>(n = 159)</i>	
Yes	78	49.0
No	81	59.0
STIs ever tested positive for*		
Gonorrhea	(n=210)	
Syphilis	29	38.0
Herpes	14	18.0
Staphylococcus	10	13.0
Chlamydia	13	17.5
HIV/AIDS	2	1.0
Hepatitis B	1	0.5
Drugs use before having sex	9	12.0
Yes		
No	33	15.7
	177	84.3
Alcohol use before having sex		
Yes	51	24.3
No	1159	75.7
Condom use	85	40.0
Yes	125	59.5
No		
Sex with Commercial sex workers		
Yes	23	11.0
No	187	89.0

*Multiple responses # Among sexually active respondents

Table 5b: Relationship Between Sexual Practice And Positive Test For STIs

Sexual Practice	Have you ever had STI?		Test Statistics	p-value
	Yes	No		
	(n = 78) Freq (%)	(n = 132) Freq (%)		
Condom use with regular partner				
Yes	38 (42.7)	51 (57.3)	$\chi^2 = 2.041$	0.153
No	40 (33.1)	81 (66.9)		
Drugs before having sex				
Yes	26 (78.8)	7 (21.2)	$\chi^2 = 29.084$	< 0.001*
No	52 (29.4)	125 (70.6)		
Alcohol before having sex?				
Yes	34 (66.7)	17 (33.3)	$\chi^2 = 25.148$	< 0.001*
No	44 (27.7)	115 (72.3)		
Have sex with commercial sex workers				
Yes	18 (78.3)	5 (21.7)	$\chi^2 = 18.704$	< 0.001*
No	60 (32.1)	132 (67.9)		

*Statistically significant

Table 6: Association Between Socio-Demographics and Knowledge of Respondents on STIs

Variables	Knowledge		Test Statistics	p-value
	Good (n = 180)	Poor (n = 30)		
	Freq (%)	Freq (%)		
Age in years				
15 – 18	23 (85.2)	4 (14.8)	$\chi^2 = 2.968$	0.397
19 – 22	71 (82.6)	15 (17.4)		
23 – 26	64 (91.4)	6 (8.6)		
> 26	22 (81.5)	5 (18.5)		
Gender				
Male	75 (83.3)	15 (16.7)	$\chi^2 = 0.729$	0.393
Female	105 (87.5)	15 (12.5)		
Marital Status				
Single	165 (86.4)	26 (13.6)	Fischer's Exact = 1.806	0.401
Married	14 (77.8)	4 (22.2)		
Divorced	1 (100)	0 (0)		
Faculty				
ICT	86 (82.7)	18 (17.3)	Fischer's Exact = 2.647	0.625
Engineering	26 (86.7)	4 (13.3)		
Applied Science & Technology	27 (84.4)	5 (15.6)		
Business Studies	20 (90.9)	2 (9.1)		
Art	21 (95.5)	1 (4.5)		
Level of Study				
ND 2	22 (84.6)	4 (15.4)	$\chi^2 = 0.398$	0.814
HND 1	57 (83.8)	11 (16.2)		
HND 2	101 (87.1)	15 (12.9)		
Ethnic group				
Etsako	45 (81.8)	10 (18.2)	Fischer's Exact = 10.654	0.548
Igbo	40 (85.1)	7 (14.9)		
Benin	31 (86.1)	5 (13.9)		
Esan	26 (92.9)	2 (7.1)		
Yoruba	14 (87.5)	2 (12.5)		
Owan	7 (77.8)	2 (22.2)		
Urhobo	7 (100)	0 (0)		
Itsekiri	5 (100)	0 (0)		
Others*	5 (71.6)	2 (28.4)		
Religion				
Christianity	156 (86.2)	25 (13.8)	Fischer's Exact = 3.076	0.339
Islam	18 (81.8)	4 (18.2)		
ATR**	1 (50.0)	1 (50.0)		
Others	5 (100)	0 (0)		

*Hausa, Akoko Edo, Akwa Ibom, Calabar, Ukwani

**African Traditional Religion

Table 7a: Association Between Socio-Demographics and Attitude of Respondents

Variables	Attitude		Test Statistics	p-value
	Good	Bad		
	(n = 202) Freq (%)	(n = 8) Freq (%)		
Age in years				
15 – 18	24 (88.9)	3 (11.1)	Fischer's Exact = 3.993	0.184
19 – 22	84 (97.7)	2 (2.3)		
23 – 26	68 (97.1)	2 (3.9)		
> 26	26 (96.3)	1 (3.7)		
Gender				
Male	85 (94.4)	5 (5.6)	$\chi^2 = 1.310$	0.292
Female	117 (97.5)	3 (2.5)		
Marital Status				
Single	184 (96.3)	7 (3.7)	Fischer's Exact = 2.177	0.538
Married	17 (94.1)	1 (5.9)		
Divorced	1 (100)	0 (0)		
Faculty				
ICT	99 (95.2)	5 (4.8)	Fischer's Exact = 3.242	0.444
Engineering	29 (96.7)	1 (3.3)		
Applied Science & Technology	32 (100)	0 (0)		
Business Studies	22 (100)	0 (0)		
Art	20 (90.9)	2 (9.1)		
Level of Study				
ND 2	25 (96.2)	1 (3.8)	Fischer's Exact = 1.505	0.519
HND 1	64 (94.1)	4 (5.9)		
HND 2	113 (97.4)	3 (2.6)		
Ethnic group				
Etsako	54 (98.2)	1 (1.8)	Fischer's Exact = 16.028	0.277
Igbo	46 (97.9)	1 (2.1)		
Benin	33 (91.7)	3 (8.3)		
Esan	28 (100)	0 (0)		
Yoruba	15 (93.8)	1 (6.3)		
Owan	8 (88.9)	1 (11.1)		
Urhobo	7 (100)	0 (0)		
Itsekiri	4 (80.0)	1 (20.0)		
Others*	7 (100)	0 (0)		
Religion				
Christianity	173 (95.6)	8 (4.4)	Fischer's Exact = 1.582	0.699
Islam	22 (100)	0 (0)		
ATR**	2 (100)	0 (0)		
Others	5 (100)	0 (0)		

*Hausa, Akoko Edo, Akwa Ibom, Calabar, Ukwani **African Traditional Religion

Table 7b: Association Between Knowledge And Attitude Of Respondents

Variables	Attitude		Test Statistics	p-value
	Good	Bad		
	(n = 202) Freq (%)	(n = 8) Freq (%)		
Knowledge				
Good Knowledge	177 (98.3)	3 (1.7)	$\chi^2 = 15.789$	< 0.001*
Poor Knowledge	25 (83.3)	5 (16.7)		

*Statistically Significant

Table 8: Association Between Socio-Demographics and Positive Test for STIs

Variables	Have you ever had STI?		Test Statistics	p-value
	Yes (n = 78) Freq (%)	No (n = 132) Freq (%)		
Age in years				
15 – 18	13 (48.1)	14 (51.9)	$\chi^2 = 2.236$	0.525
19 – 22	28 (32.6)	58 (67.4)		
23 – 26	27 (38.6)	43 (61.4)		
> 26	10 (37.0)	17 (63.0)		
Gender				
Male	28 (31.1)	62 (68.9)	$\chi^2 = 2.454$	0.117
Female	50 (41.7)	70 (58.3)		
Marital Status				
Single	73 (38.2)	118 (61.8)	Fischer's Exact = 1.242	0.656
Married	5 (27.8)	13 (72.2)		
Divorced	0 (100)	1 (100)		
Faculty				
ICT	39 (37.5)	65 (62.5)	$\chi^2 = 2.687$	0.612
Engineering	29 (96.7)	1 (3.3)		
Applied Science & Technology	32 (100)	0 (0)		
Business Studies	22 (100)	0 (0)		
Art	20 (90.9)	2 (9.1)		
Level of Study				
ND 2	12 (46.2)	14 (53.8)	$\chi^2 = 5.113$	0.078
HND 1	18 (26.5)	50 (73.5)		
HND 2	48 (41.4)	68 (58.6)		
Ethnic group				
Etsako	24 (43.6)	31 (56.4)	Fischer's Exact = 15.175	0.166
Igbo	12 (25.5)	35 (74.5)		
Benin	11 (30.6)	25 (69.4)		
Esan	10 (35.7)	18 (64.3)		
Yoruba	7 (43.8)	9 (56.2)		
Owan	5 (55.6)	4 (44.4)		
Urhobo	2 (28.6)	5 (71.4)		
Itsekiri	2 (40.0)	3 (60.0)		
Others*	5 (71.4)	2 (28.6)		
Religion				
Christianity	67 (37.0)	114 (63.0)	Fischer's Exact = 1.121	0.866
Islam	9 (40.9)	13 (59.1)		
ATR**	0 (0)	2 (100)		
Others	2 (40.0)	3 (60.0)		

*Hausa, Akoko Edo, Akwa Ibom, Calabar, Ukwani **African Traditional Religion

Others =Jehovah's Witnesses (JW), Atheists, etc.

DISCUSSION

From this study, it is found that 75.7% of the study participants had a history of sexual intercourse. The mean age of sexual debut was 18.40 ± 3.0 years. The observed number of sexually active respondents was higher than the findings of a similar study conducted in University of Benin, southern Nigeria²⁶ which found that 53.0% of the students were sexually active, however there was a similar mean age of sexual debut in studies in University of Benin which was 18.30 ± 2.3 years . The most frequent STIs reported by the respondents were gonorrhea 38% which was in line with study carried out in University of Benin, southern Nigeria^{26,27} as well as University of

Ibadan, southwest Nigeria⁵ which was followed by syphilis (17%) with unprotected sexual intercourse, 97.6%, and multiple sexual partners, 82.9%, being the most reported routes of transmission of STIs . Overall prevalence rate for STIs was 37.1% which was lower compared to study carried out in University of Ibadan, southwest Nigeria⁵ which had a overall prevalence of 39.0%.

The study also found out that drug use and alcohol use before having sex with commercial sex workers were influencing factors ($P < 0.001$). This shone light on the increase use of hard drugs and alcohol use among young undergraduate students as it is beginning to cause a nuisance to communities and states around the country.

Limitations of Study

- i. Reporting bias could occur as the respondents was asked questions regarding their personal income and finances. This bias was reduced by making information given completely confidential to protect the interest of respondents.
- ii. Non-response from expected respondents was addressed by increasing sample size.

CONCLUSION

The majority of the respondents were sexually active, with the larger proportion starting sexual activity at a young age and a high prevalence of sexual intercourse. The majority of the respondents were aware of STIs and had a good knowledge score and attitude towards STIs, however a sizable number of the respondents had multiple sexual partners which could invariably increase the prevalence of STIs, therefore there is need for STI interventions targeted to young adults and students in tertiary institutions.

Recommendations

Based on the findings from the study, the following recommendations are made:

To The Government

- (i) Compelling need to implement comprehensive adolescent and student friendly health services in order to improve students' access to sexual and reproductive health information and services

School Authority

- (ii) Family Life Education (FLE), which is an integral part of the basic school curriculum, should be implemented so that young people will be equipped with adequate sexual and reproductive health information to enable them to make informed decisions about sexual issues

Students

- (iii) Advocating for abstinence with multiple sexual partners among young people

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Conflict of Interest

There was non declared. As researchers funded this project out of pocket.

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