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Assessing the HIV Knowledge, Awareness, and Utilization of YFS among Undergraduates in Rivers State, Nigeria

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Authors' contributions

This work was carried out in collaboration between the both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Background: The establishment of a Youth Friendly Centre (YFC) is to ensure that the reproductive and sexual health needs of young people are adequately met. However, data have shown that a number of them are not even aware of such Centres in their vicinities or the services they offer, how much more utilize them. Therefore, this study aimed at assessing the level of HIV knowledge, awareness, and utilization of Youth Friendly Services (YFS) among undergraduates in Rivers State University, Rivers State, Nigeria.
Methods: A total of 520 students were given structured self-administered questionnaire which had been validated and pretested. Four hundred and forty-six questionnaires were returned properly filled. Information regarding knowledge of Human immunodeficiency virus/Acquired immunodeficiency syndrome (HIV/AIDS), awareness, and utilization of Youth Friendly Services were obtained from the students.
Results: Two hundred and nineteen (49.1%) of the students indicated HIV had no cure, while 73(16.4%) reported that there was a cure and 154 (34.5%) specified they were uncertain. The

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female respondents had a better knowledge compared to their male counterparts. The respondents exhibited a high knowledge of HIV preventive measures with the majority 357 (80%) indicating that abstinence was the best means. All the students agreed that everyone was at risk of HIV if they engaged in risky behaviors. In spite of this good knowledge on HIV, only 112 (25.1%) of the students were aware of a YFCs on campus.

Conclusion: The high knowledge level of HIV exhibited by the students did not translate to the awareness and utilization of the YFS. There is still so much to be done by health workers and the university committee if the students are to be encouraged to use the services offered at the Centre.

Keywords: Youth; HIV; YFCs; undergraduates; Port Harcourt; Rivers State.

1. INTRODUCTION

The World Health Organization (WHO) defined youth as a person who is between the ages of 15 to 25 years [1] while the United States of America defines youth as an individual who is less than 25 years old [2]. However, according to the Nigerian national youth policy, youth is a Nigerian citizen who is between the ages of 18 and 29 years of age. This age was revised from the initial 18 to 35 years as found in the 2009 youth policy [3]. For this study, the Nigerian definition of 18 to 35 years was adopted.

Human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) is regarded as the sixth leading cause of global mortality and a major cause of death in sub-Saharan Africa (SSA) [4]. It remains a major global public health issue which has caused about 33 million deaths. By the end of 2019, it was estimated that 38 million individuals worldwide were infected with the virus. More than two-thirds (25.7 million) of all the persons living with HIV lives in the African Region [5]. Nigeria, like most of the countries in the SSA region, has been greatly affected by the HIV/AIDS pandemic [6]. The condition has been worsened by the act of denial by infected persons, weak health institutions, widespread lack and poverty, and injurious cultural practices [7]. Although the advent of antiretroviral therapy (ART) has greatly reduced the morbidity and mortality as well as the outcome of the infected persons, still a significant proportion of HIV-infected patients continue to die from both AIDS-related and non-AIDS-related conditions [8]. It is known that a great number of young persons are active sexually and are therefore, increasingly involved in risky sexual behaviors that can predispose them to HIV/AIDS [9].

Globally, there are about 5 million young people aged 15 to 25 years who are currently infected with HIV. This figure translates to 30% of all global new infections. This number includes children who were infected at birth and grew up to become adolescents. Various HIV preventive measures have been outlined to reduce the risk of infection faced by young people. Delayed sexual debut, abstinence from sexual contact, decreased number of sexual partners, having access to, and utilization of comprehensive reproductive health services are some of these measures. It is also of immense importance that those already living with the virus need to have continuous access to treatment, care, support, and further positive preventive measures [1]. Female adolescents and young women in SSA are commonly susceptible to sexual and reproductive health challenges which include contracting HIV and/or sexually transmitted infections (STIs) and having unintended pregnancies [10].

Youth aged between 13 and 24 years of age in the United States and the six dependent areas were said to make up 21% of the newly diagnosed cases of HIV of 37,832 in 2018 [11]. Yet, compared to any other age group, this group of individuals are less likely to be cognizant of their status. Evidence from data in 2017 showed that only 9% of high school students have ever been tested for HIV. This means that more youth go undiagnosed if the rate of testing remains low [11]. In Nigeria, 60% of new HIV infections are found in the age group range of 15-24 years of age [6]. The HIV prevalences for Rivers State between 2012 to 2014 were 13.6%, 7.3%, and 9.4% respectively [12]. However, recent data from the National Agency for the Control of AIDS (NACA), showed that the prevalence in the state is 3.8%, making her rank third of the first three states in Nigeria with high HIV prevalence [13].

An undergraduate is defined by the Cambridge Advanced Dictionary [14] as a student who is studying for their first degree at a college or a university. The majority of undergraduates in Nigeria fall into the age category of youth because the least age to be an undergraduate is

16 years of age [15]. Pieces of evidence abound that show that there are high rates of sexual activities, unplanned pregnancies, STIs, and HIV infection among adolescents and the youth. This has become a huge public health concern [16].

Studies have shown that young people hardly go to the usual health facilities to access sexual and reproductive health services. This is evidenced by the fact that only about 10% of young men and 15% of young women in low and middle countries are aware of their HIV status [17]. In 2001, WHO organized a Global Consultation on Adolescent Friendly Health Services and one of its key recommendations was to develop tools to support countries in improving the quality of health services provided to adolescents. In 2003, WHO emphasized the need to develop youth-friendly health services to improve the care provided to young people throughout the world [18].

According to the WHO guideline on YFCs, health care services they render to the youths can only be beneficial if they are accessible, acceptable to them, equitable, appropriate for them, and effective for the various youth sub-population [18]. To be able to get attracted to YFCs where they can get reproductive and sexual health information, get tested for HIV and other STIs, get contraceptives and user guides, the services have to be appealing and tailored toward meeting their peculiar needs. The youth needs services that would support their cognitive, emotional, psychological, physiological, and social transition to adulthood [17]. Two characteristics expected of the health workers in such Centres by the youth are to be treated with respect and to maintain confidentiality [19]. This means that for a notable uptake of YFS, the delivery Centre has to meet certain criteria.

To be positively distracted, from risky behaviors that could lead to HIV infection, YFCs were set up in several university campuses by NACA in collaboration with some non-governmental organisations (NGOs). Various services in such Centres include but are not limited to HIV counselling and testing (HCT), game bay for accessing in-door and out-door games, cybercafé, library for information on sexuality, and family planning unit [20].

Despite the availability of information on HIV/AIDS prevention and control, the prevalence among young persons has remained high compared to other age groups. There is also a paucity of data to suggest the level of utilization of YFS on campus by undergraduates in SSA**.** Therefore, the objective of this study was to assess the HIV knowledge, awareness, and utilization of YFS among undergraduates in Rivers State, Nigeria.

2. SUBJECTS AND METHODS

2.1 Study Setting

The target population in this study are the undergraduates (who also make up the percentage of young people) in the state. There are nine higher institutions in Rivers State with undergraduates. They are Captain Elechi Amadi Polytechnic, Rumuola; City Model University, Rumuepirikom Road, Opposite Jaros Base, Port Harcourt; Federal College of Education, Omoku; Ignatius Ajuru University of Education, Rumuolumeni U.O.E Road, Port Harcourt;Rivers State University, Nkpolu - Oroworukwo, Port Harcourt;University of Port Harcourt, East / West Road, Choba, Port Harcourt; Rivers State College of Education, Main Campus, Rumuolumeni, Port-Harcourt; Madonna University, Elele, Rivers State; and Rivers State Polytechnic, Bori.

For this study, the Rivers State University (RSU) was chosen for several reasons which include that: when the study was carried out, most of the tertiary institutions in Port Harcourt, Nigeria did not have a YFC aside from the University of Port Harcourt (UNIPORT) and RSU. Of these two, RSU had a more functional and comprehensive one when compared to that of UNIPORT. Besides, the University of the study is at the heart of the town of Port Harcourt where it is expected that social activities are at a peak. It is also important to note that the services in this Centre are free and sponsored by the University, and selected NGOs.

The study was a descriptive cross-sectional one which was carried out between February to June 2015 with the students of RSU, Port Harcourt, Rivers State, South-South Nigeria. The University was established in October 1980 from the Rivers State College of Science and Technology which was in itself established in 1972. From 1980, the name was changed to Rivers State University of Science and Technology. However, by 2017, the name was altered to the present Rivers State University. It is located at Nkpolu-Oroworukwo in Port Harcourt, the capital of Rivers State, Nigeria. The

University has a total student population of 29,939 and eleven faculties [21].

2.2 Study Population

The study population included all undergraduate students in Rivers State.

Study participants were male and female students from various faculties in RSU and were of no particular tribe or religion and within the age group of 18-35years of age.

2.3 Sample Size Estimation

The sample size was calculated from the Cochrane formula [22].

$$n = \frac{z^2 X p(1-p)}{e^2}$$

Where,
n = least required sample size
z= z value at a confidence level of 95% = 1.96
p = estimated level of use of uptake of services. p = 42.8% = 0.428 obtained from the study by Katibi and Adegoke [23]
e = margin of error at 5%
n = 376.19 participants

The sample size was further increased by 15% to account for non-response error as approximately 433 participants.

Multiplying with a Design Effect of 1.2 [24]

n = 433 x 1.2 =519.6

Approximately 520 participants were involved in this study from February to June 2015

2.4 Eligibility Criteria

Participants had to be undergraduates of the institution of study in the four departments which had been selected from first-year (regarded as level one) to the final year, which could be the fourth or fifth year (regarded as 400 or 500 level) depending on the department. They also had to be within the age range of 18 to 35 years of age. Only those who gave their permission to participated.

2.5 Sampling Method

A multi-stage sampling technique was employed to select participants. The first stage involved writing out a list of all the faculties in the university. As at the time of this study the university had a total number of eight faculties. Four of them, engineering, law, sciences, and management sciences were picked using random sampling with the use of the balloting method. The second stage involved listing out the various departments making up the various faculties. With the use of balloting again, a department was selected from each faculty. The departments were: civil engineering, business law, physics, and, accountancy respectively. In stage three, lists of students of the various levels of study were obtained from the various course representatives for the departments. These lists constituted the sampling frame. The study participants were recruited using systematic random sampling technique until the sample size was completed. This was done by calculating the sampling interval, k which gave a value of 3. The spacing unit used was therefore, 3 to select the participants until the sample size was completed. Probability proportional to size (PPS) sampling was used in determining the number each department would contribute to the sample size. Accountancy had the most number of students, hence contributed highest.

2.6 Study Instrument

The study instrument used was a self-administered questionnaire divided into three sections, with the first section having questions on demographic characteristics of the study population. The second section contained questions on HIV/AIDS knowledge and preventive strategies while the third section had questions on awareness of the availability of YFC within the University, the services it provides and utilization of the services therein. The questionnaire was validated and pre-tested. The face and content validity was checked by three experts in the department of community medicine, UNIPORT to ensure it would measure the needed variables. Corrections were made afterwards. A pilot study and a pre-test were carried out on the instrument in UNIPORT by administering 30 questionnaires to 30 students of the university. The reliability coefficient of 0.82 for knowledge was obtained, 0.877 for awareness, and 0.89 for utilization.

The respondents' HIV/AIDS knowledge were rated high, fair or low based on the number of correct answers ticked in the second section of the questionnaire. For those who responded that there was a functional YFC, they were asked to indicate two services offered by the Centre and

to highlight which of them they had assessed/utilized. They were also asked to indicate how often they visited the Centre in a week and what challenges they had encountered in the course of obtaining services from the Centre.

3. RESULTS

Of the total number of five hundred and twenty questionnaires administered, 446 were returned properly filled giving a response rate of 86.0%. These 446 questionnaires were used for the analysis.

The ages of the respondents ranged from 18 years to 35 years, with the mean age of 22.6 ± 3.3 years. There were more singles than married respondents, 192 (43.05%) for females, and 236 (52.91%) for males. The majority of the respondents, 87% lived off campus while only 13% lived within the campus. The distribution according to the level of the study showed that 97 (21.7%) of the respondents were at 100 level, 84 (18.8%) were at 200 level, 94 (21.1%) at 300 level, 144(32.3%) at 400 level and 27 (6.1%) in 500 level. (Table 1)

3.1 Assessing the Knowledge of HIV

Results from Table 2 assessed the level of the students' knowledge of HIV/AIDS. This showed that all the respondents 446 (100%) had all heard of HIV.

Regarding the question; "Is HIV the same as AIDS?" Table 2 showed that 79.1% of the respondents disagreed that HIV was the same as AIDS, 12.6% of the respondents indicated they were the same while 8.3% didn't know.

On the question, "Does AIDS cause HIV?" The table disclosed that 245 (54.9%) of the respondents indicated 'No' while 130 (29.1%) indicated 'Yes' and 71 (15.9%) 'I don't know.

Table 1. Socio-demographic data of n= 446 respondents

Variable	Sex		Total (%)
	Female	Male	
Age:			
16-20	72 (16.13%)	49 (11.00%)	121 (27.13%)
21-25	101 (22.65%)	149 (33.40%)	250 (56.05%)
26-30	28 (6.28%)	37(8.29%)	65 (14.57%)
31-35	4 (0.9%)	6 (1.35%)	10 (2.25%)
Total	205 (45.96%)	241 (54.04%)	446 (100.0%)
Religion:			
Christianity	182 (40.80%)	219 (49.11%)	401 (89.91%)
Moslem	11 (2.47%)	14 (3.14%)	25 (5.61%)
Others	12 (2.69%)	8 (1.79%)	20 (4.48%)
Total	205 (45.96%)	241 (54.04%)	446 (100.0%)
Level of study:			
Level 1	50 (11.21%)	47 (10.54%)	97 (21.75%)
Level 2	36 (8.07%)	48 (10.76%)	84 (18.83%)
Level 3	40 (8.97%)	54 (12.11%)	94 (21.08%)
Level 4	69 (15.47%)	75 (16.82%)	144 (32.29%)
Level 5	10 (2.24%)	17 (3.81%)	27 (6.05%)
Total	205 (45.96%)	241 (54.04%)	446 (100.0%)
Marital status:			
Single	192 (43.05%)	236 (52.91%)	428 (95.96%)
Married	13 (2.91%)	5 (1.12%)	18 (4.04%)
Total	205 (45.96%)	241 (54.04%)	446 (100.0%)
Residence:			
On-Campus	20 (4.48%)	38 (8.52%)	58 (13.00%)
Off-campus	185 (41.48%)	203 (45.52%)	388 (87.00%)
Total	205 (45.96%)	241 (54.04%)	446 (100.0%)

Table 2. Respondents awareness of HIV (n =446)

Variables	Frequency	%
Awareness of HIV		
Yes	446	100.00
No	0	0.00
Is HIV the same as AIDS?		
Yes	56	12.60
No	353	79.10
I don't know	37	8.30
Is AIDS the cause of HIV?		
Yes	130	29.10
No	245	54.90
I don't know	71	15.90
Is there cure for LHIV?		
Yes	73	16.40
No	219	49.10
I don't know	154	34.50

**percentage of total 446*

Also table 2 showed that 219 (49.1%) of the students indicated there was no cure for HIV, 73 (16.4%) of them indicated that there was a cure while 154 (34.5%) indicated that they didn't know.

More females, 111 (24.89%) knew that there was no cure for HIV than their male counterparts 108 (24.22%). The p-value is of significance (p=0.048)

Fig. 1, shows that 315 (70.6%) of the respondents had a high knowledge of the prevention of HIV, 97 (21.7%) had a fair knowledge while 34 (7.6%) had a low knowledge.

3.2 Distribution of the Various Responses on HIV Preventive Methods

Fig. 2, disclosed that 355 (79.6%) of the respondents specified abstinence as a means of preventing HIV, 259 (58.1%) selected keeping to one sexual partner as a means of prevention, 247 (55.4%) picked the use of condoms, 282 (63.2%) picked screening of blood, 332 (74.4%) chose avoidance of sharp objects as means of prevention and 43 (9.6%) selected use of antibodies.

Table 3. Relationship between Sex and Knowledge of respondents on the outcome of HIV infection and treatment

Sex	Is there a cure for HIV?*			Total (%)
	Yes	No	Don't know	
Female	25 (5.61%)	111 (24.89%)	69 (15.46%)	205 (45.96%)
Male	48 (10.76%)	108 (24.22%)	85 (19.06%)	241 (54.04%)
Total	73 (16.37%)	219 (49.11%)	154 (34.52%)	446 (100.00%)

**χ^2 (df=2)=6.08, p=0.048*

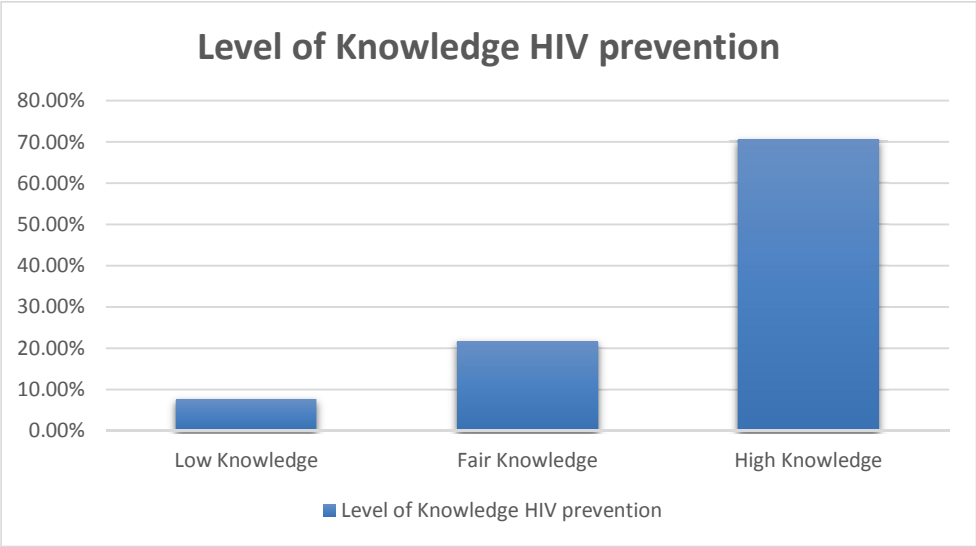

Fig. 1. Distribution of the level of knowledge on HIV prevention

Table 4 shows that 156 (76.1%) females of the total (205) female respondents had a higher knowledge of HIV prevention when compared with the males with a value of 159 (66.0%) from a total of 241, while 35(17.1%) females and 62 (25.7%) males had a fair knowledge of HIV prevention respectively. However, 14 (6.8%) females and 20 (8.3%) males had low knowledge of HIV prevention respectively. The level of significance between the knowledge of HIV prevention amongst the male and female respondents (p-value = 0.06). The p-value obtained was not of significance. This showed that the knowledge of HIV prevention is not dependent on whether the individual is a male or a female.

Table 5 shows that 428 (96%) respondents indicated that unprotected sex was a high-risk behavior, followed by tattoo 238 (53.4%), then deep kissing 167 (37.4%). 19 (4.3%) respondents picked drinking from the same cup and bathing with an infected person respectively, 8 (1.8%) respondents picked eating or being in the same vehicle with an infected person respectively while 9 (2.0%) picked shaking hands with an infected person as options of high-risk activities. On the question, "who is at risk of contracting HIV", a total of 411 (89.54%) agreed that everyone was at risk. 26 (5.67%) believed only prostitutes were at risk, 13 (2.83%) picked, only those who were pierced by sharp objects were at risk. 5 (1.09%) felt that young people only were at risk. 3 (0.65%) believed only homosexuals were at risk while just 1 (0.22%) respondents felt only old people were at risk.

3.3 Awareness of a YFC on Campus

Results from Fig. 3 showed that 112 (25.1%) of the respondents were aware of an YFC on campus, 122 (27.4%) indicated that there was none while 212 (47.5%) didn't know of any.

Table 6 indicates that only 112 (25.1%) of the respondents were aware of a YFC on campus, 122 (27.4%) indicated that there was none while 212 (47.5%) didn't know of any. From the result, a total of 334 (74.1%) were not aware of a YFC on campus, how much more using it.

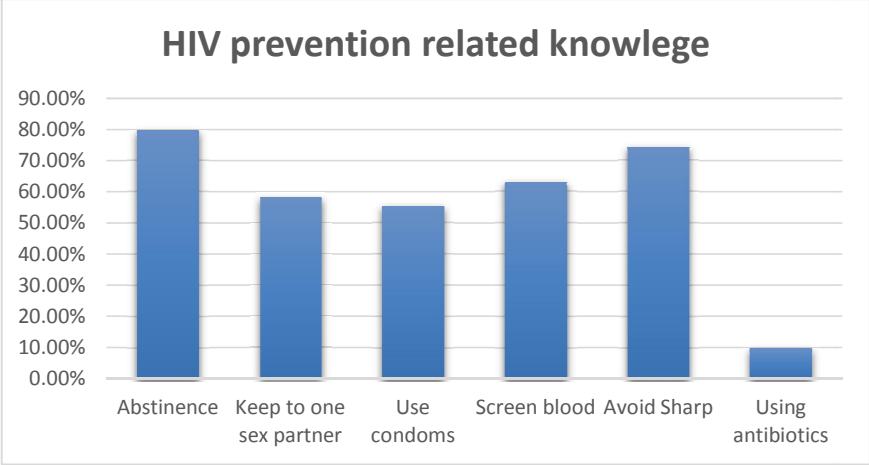

Fig. 2. Bar chart showing the level of knowledge of HIV prevention among the respondents

Table 4. Relationship between the sex of the respondents and their level of knowledge of HIV prevention

Sex	Prevention knowledge level*			Total (%)
	Low	Fair	High	
Female	14(6.8%)	35(17.1%)	156(76.1%)	205(100%)
Male	20 (8.3%)	62(25.7%)	159(66.0%)	241(100%)
Total	34(7.6%)	97(21.7%)	315(70.6%)	446(100%)

χ^2 (df=2)=5.37, p=0.06

Table 5. Knowledge of HIV risk

Variable	Frequency	%
Knowledge of HIV high-risk activities		
Unprotected sexual intercourse	428	96.0
Being in the same vehicle with an infected person	8	1.8
Eating with an infected person	8	1.8
Shaking hands with an infected person	9	2.0
Drinking from the same cup with an infected person	19	4.3
Sharing a swimming pool with an infected person	19	4.3
Tattoo	238	53.4
Deep kissing an infected person	167	37.4
Who is at risk?		
Prostitutes only are at risk	26	5.67
Homosexuals only are at risk	3	0.65
Old people only are at risk	1	0.22
Young people only are at risk	5	1.09
Only those who get pierced by sharp objects are at risk	13	2.83
Everyone is at risk	411	89.54

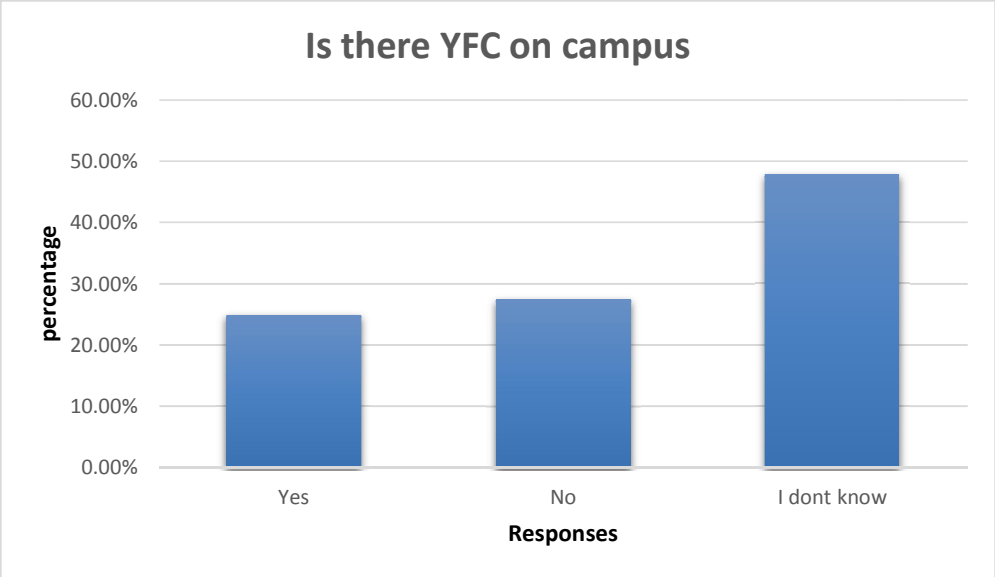

Fig. 3. Showing responses of respondents to awareness of a YFC on campus

Table 6. Awareness of a YFC on campus, n=446

Variable	Frequency	%
Awareness of a YFC on campus		
Yes	112	25.10
No	122	27.40
I don't know	212	47.50
Awareness of various YFC services		
Internet services	22	19.64
HIV counselling & testing	27	24.11
Indoor games	36	32.14
Library services	17	15.18
I don't know	10	8.93

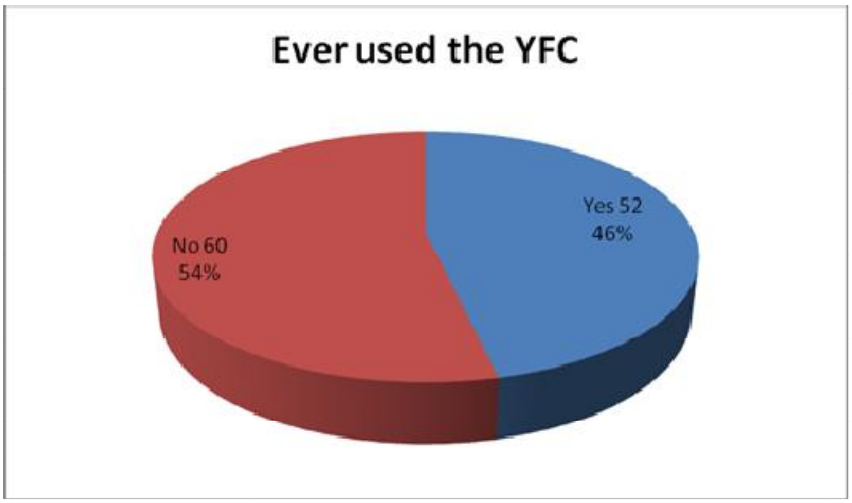

Fig. 4. Pie chart showing the usage of the YFC

3.4 Utilization of YFC Services

From Fig. 4, a total of 52 (46.43%) had ever used the services of the YFC while the remaining 60 (53.57%) had not. This result shows that more than half of the respondents had not used the services at the YFC despite knowing of its existence.

Table 7 indicates that most of the respondents 33 (55.0%) who were aware of the services of the YFC, did not access them because they said they did not have the time to do so. 6 (10%) indicated that the opening hours of the YFC were not convenient. 10 (16.67%) pointed out that the attitude of the workers at the Centre put them off.

Table 7. Distribution showing reasons for lack of usage of YFC services

Response	Frequency	%
Don't have time	33	55
Opening hours are not convenient	6	10
Don't like services offered	2	3.33
No knowledge of services	7	11.67
The attitude of workers there	10	16.67
Not Interested	2	3.33
Total	60	100.00

4. DISCUSSION

This research work was aimed at assessing the HIV knowledge, awareness, and utilization of YFS by undergraduates of Rivers State University. Findings from the research indicated that the respondents had quite a high knowledge of HIV/AIDS, its causes, means of prevention, and transmission. However, it was observed that despite this knowledge the uptake of the HCT and other services at the YFC was quite very low. Results showed that only 112 (25.11%) of the students were aware of a YFC on campus, 56 males and 56 females. Of this number only 97 (21.75%) were aware of the services rendered, while just 52 (11.66%) had used any of these services. Thus, a great majority of the respondents did not know of the University YFC nor did they have any idea of the services rendered there. This is a disturbing outcome because this means that the purpose for which the Centre was set up was not being met. This also suggests that the Centre may not be making the required impact among the undergraduates of the university. This outcome was in line with Thongmixay et al. [25] who in their research in Lao People's Democratic Republic discovered that the youths in that vicinity hardly assessed the YFS available to them even when they were aware of its existence. A similar outcome was obtained in the research carried out by Simegn et al. [26] in Debre, Tabor town in Northwest Ethiopia, where the utilization of YFS by preparatory school students was low. Another study by Zuurmond et al. [27] showed that despite the extensive emphasis on making YFCs a means to boost young people's accessibility to sexual and reproductive health, it was disheartening to note that this was not so. This makes them prone to poor sexual and reproductive health and susceptible to

contracting HIV, STIs, and for the females, getting unplanned pregnancies. However, this was at variance with the study by Motuma et al. [28] in which they found that there was a moderate use of the YFS by the youth in Harar town, East Ethiopia.

The various reasons for not assessing the YFC on campus and the services offered there include lack of time due to crowded lecture hours and the opening hours of the Centre which is not convenient. This outcome was tallied with that from the study of Abebe & Awoke [29] where 31.8% of the study participants indicated that the reproductive health service working hours were not convenient. According to the report by Osanyin [30], one of the barriers to utilization of services for many youths is the facilities' hours of operation, as they frequently coincide with school and working hours. In his research, the majority of the facilities studied were open between 8 am and 4 pm. He further pointed out that facilities that were operational for 24 hours were more likely to be convenient for young people as they would have the choice of when to access such services.

The result of this study shows that 11.8% of the respondents did not know about the services rendered in the University's YFC, while 3.33% did not like the services being rendered there. This information is of vital importance because as noted by Tylee et al. [31] if the services offered by a Centre were not sensitive to the peculiar needs of the youth, we may just be wasting time setting up YFCs that would not be utilized for the purpose for which it was established. Also, 16.67% of the respondents expressed that the attitude of the health workers at the Centre served as a deterrent to seeking the services offered there. This finding was in agreement with the study by Kennedy et al. [32] where adolescents interviewed in the study indicated an unfriendly and judgemental attitude of health workers as a barrier to accessing YFS.

5. CONCLUSION

This study concludes that although the youths in the University of the study were aware of the various methods of preventing HIV, only a few of them knew of the existence of the YFC where some reproductive and sexual health services are available. While out of those who were aware of its existence only very few of them utilized these services due mainly to the opening hours coinciding with lecture periods and the poor attitude of the health caregivers.

It is recommended that the opening hours of the Centre may have to be rescheduled to include weekends, to make it easier for those who need to access the services of the Centre.

6. LIMITATION OF THE STUDY

This study was carried out in one university in Rivers State, a state with other higher institutions of learning. Hence, findings from this study may not represent the entire state.

7. RECOMMENDATION FOR FUTURE RESEARCH

There will be need for an elaborate study involving the YFCs in the other institutions in the state.

CONSENT AND ETHICAL APPROVAL

Ethical approval to conduct this study was obtained from the Ethics Research Committee of the University of Port Harcourt. As per international standard or university standard, respondents' written consent has been collected and preserved by the authors. Informed consent was given as a means to ensure respondents' right to autonomy is protected. Detailed information regarding the research was made known to intending participants who were given the freewill to make informed decision to participate. Confidentiality was maintained by making the questionnaires anonymous, thus protecting the respondents' identity and privacy.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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