



# Assessment of Knowledge of HIV and its Impact on the Sexual Behaviour of Chukwuemeka Odumegwu Ojukwu University (COOU) Students, Igbariam Campus.

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## ABSTRACT

Human Immunodeficiency Virus (HIV) targets the body's immune system making it weak to fight infections and some kinds of cancers that would have been fought in normal immune condition. Without treatment, it has a tendency of progressing to acquired immunodeficiency syndrome (AIDS). This study was undertaken to ascertain the knowledge of HIV, as well as its medical management and its impact on sexual behaviour amongst undergraduates of Chukwuemeka Odumegwu Ojukwu University (COOU) Igbariam campus. Multistage sampling method was used. Semi-structured self-administered questionnaires were distributed to two hundred and seventeen (217) Arts students of Chukwuemeka Odumegwu Ojukwu University Igbariam campus. The results showed that 209 (96.3%) students responded. Variable numbers of the respondents were mainly from the departments of Economics (10%), Education (1.4%), Law (41.6%), Political Science (25.4%), Psychology (17.2%) and Arts and Social Science (4.3%). The older age group ( $\geq 25$  years) and the married/co-habiting/others were more knowledgeable of HIV than the younger respondents and the single, respectively. The differences were statistically significant, ( $P=0.028$ ). However, males were significantly more knowledgeable than females ( $P=0.001$ ). Also, those that did not reveal whether they had ever had sex or not, as well as those who had never had sex were more knowledgeable than those who had ever had sex ( $P = 0.002$ ). This was also statistically significant. In conclusion, significantly increased number of the respondents had very good knowledge of HIV, its management and prevention. However, only 30.1% actually used condom. Also the results showed that HIV was well known even among the non-medical students.

## INTRODUCTION

Human Immunodeficiency Virus (HIV) targets the body's immune system making it weak to fight infections and some kinds of cancers. Without treatment it can progress to acquired immunodeficiency syndrome (AIDS). AIDS is caused by human immunodeficiency virus types 1 and 2 (Bhatti et al., 2016). AIDS was first recognized as a new disease in the year 1981. It was increasingly noticed amongst homosexual men who usually had opportunistic infections and rare malignancies (Sharp and Hahn 2011).

HIV does not thrive in vitro. Mode of transmission of the virus is via direct exposure to infected blood or secretions in the presence of skin damage by needles or blades, abrasions in mucosal tissues during sexual intercourse, from mother to child (Suligoi et al., 2010).

According to UNAIDS, 38.4 million people worldwide were infected with HIV in 2021. 1.5 million people became newly infected with HIV in the same year. 650, 000 people died from AIDS-related illnesses, while 40.1 million people have died from AIDS-related illnesses since the beginning of the pandemic. In 2021, the estimated number of HIV-positive people accessing antiretroviral therapy was 28.7 million (UNAIDS, 2022).

In 2019, prevalence of HIV in Nigeria was 1.4% among those within the age range 15-19 years. Previous estimates had indicated a national prevalence of 2.8%. UNAIDS and the National Agency for the Control of AIDS estimated that there were 1.9 million people living with HIV in Nigeria (UNAIDS, 2022).

Sexuality can be said to be intimately associated with physical and mental health, which triggers thoughts, feelings, expressions, as well as interactions that are related to sex, intimacy, and reproduction (Van der Slui et al., 2016). Research on sexual behaviours and/or expressions has shown that risky sexual behaviours (unprotected vaginal, oral or anal intercourse) predispose to sexually transmitted infections (STIs). Young students that commence sexual intercourse early in life are at a greater risk of getting pregnant or contracting an STI than those who chose to postpone their initiation time for sexual activities (Glen-Spyron, 2015). The impacts of these risky behaviours are manifested in the economic and psychosocial costs, in addition to sexually transmitted infections (Tu et al., 2018; Waktole, 2019).

## METHODOLOGY

### Study Design

It was a descriptive, cross sectional study using semi structured questionnaires which were distributed to students of Chukwuemeka Odumegwu Ojukwu University, Igbariam campus between May and June

2022. Questionnaire was pretested among 20 students for completeness, correctness and necessary modification. Questionnaire used as pre-test was not included in the main study.

**Inclusion Criteria:** non Science students of COOU who were believed to have no strong knowledge of HIV, first, second, third, fourth year students.

**Exclusion Criteria:** students who were unwilling to participate, students who were not available at the time of Study.

### Study Population

The study population included the students of the Faculty of Arts, Chukwuemeka Odumegwu Ojukwu University, Igbariam campus

**Sample Size Determination:** Using

$$n = z^2pq / d^2$$

Where

$n$  = desired sample size (when population is greater than 10,000).

$z$  = standard normal deviate usually set at 1.96 which corresponds to the 95% confidence level.

$p$  = proportion of the target population estimated to have a particular characteristics. If none use 50% (0.50).

$q = 1.0 - p = 1 - 0.5 = 0.5$

$d$  = degree of accuracy desired usually set at 0.05 or 0.02 (Pourhoseingholi et al., 2013)

### Data Collection Methods

The validity and credibility of the questionnaire was ascertained by subjection to a mini survey before being used for data collection from participants using a standardized, self-administered questionnaire.

For sake of compliance, questionnaires were administered to the students after their lectures during free periods and attempts were made to collect them the same day.

### Data Management Plan

- Knowledge of HIV was assessed using the following parameters: mode of transmission, population at risk, and mother-to-child mode of transmission. Ten questions were used to assess respondent's knowledge of HIV.
- Each correct knowledge question was scored 2 and each wrong knowledge question had a score of 1. Total score was computed for each respondent. Knowledge scores 10-14 and 15-20 were considered poor and good knowledge, respectively.

- Free medical services were assessed using knowledge of drug treatment of HIV and centre where free antiretroviral drugs can be obtained
- Impact on sexual behaviour was assessed using: abstinence, sexual practices and protective measures taken during, before and after sexual activity.

### Data Analysis

The data collected were analysed using Statistical Package for Social Science (SPSS) version 21. Data analysis included appropriate tables of frequencies, percentages, proportions, mean, and diagram of relevant variable (bar charts, pie charts)

### Ethical Consideration

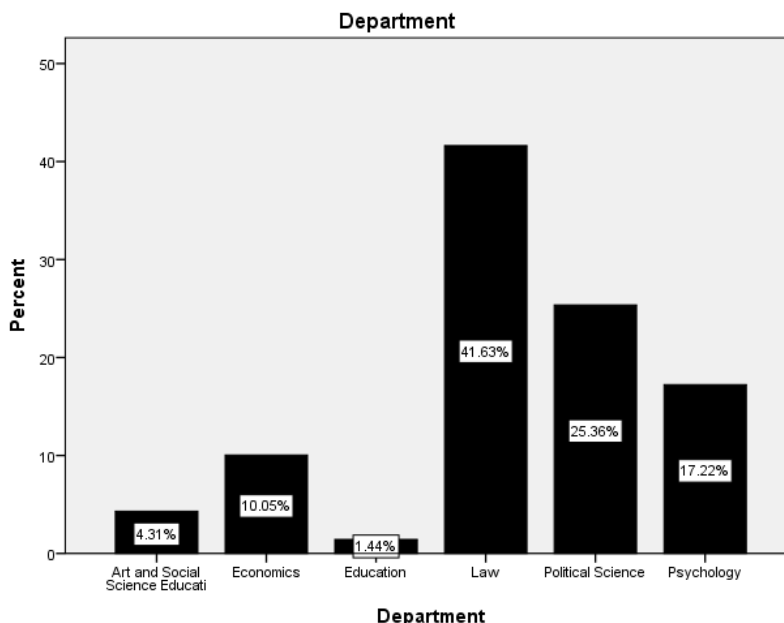
Ethical clearance was obtained from Chukwuemeka Odumegwu Ojukwu Igbariam Campus. The aim of this study was explained to the participants and informed consent (verbal and written) was obtained before

administering each questionnaire. Participants' confidentiality was ensured by excluding names in the questionnaire.

## RESULTS

### Socio- Demographic

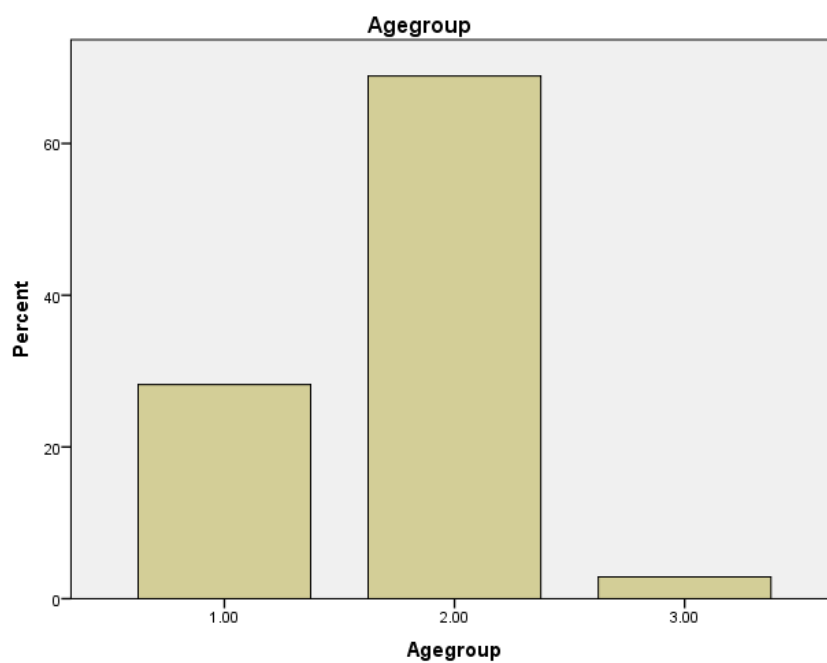
A total of 217 questionnaires were administered randomly to non-science students of Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. Only 209 students responded, giving a response rate of 96.3%. A total of 9 (4.3%) students responded from the Department of Art and Social Science Education, 21 (10%) respondents from the Department of Economics, 3 (1.4%) respondents from the Department of Education Science, 87 (41.6%) respondents from the Department of Law, 53 (25.4%) respondents from the Department of Political Science, and 36 (17.2%) respondents from the Department of Psychology.



**Fig. 1: Percentage Distribution of Department**

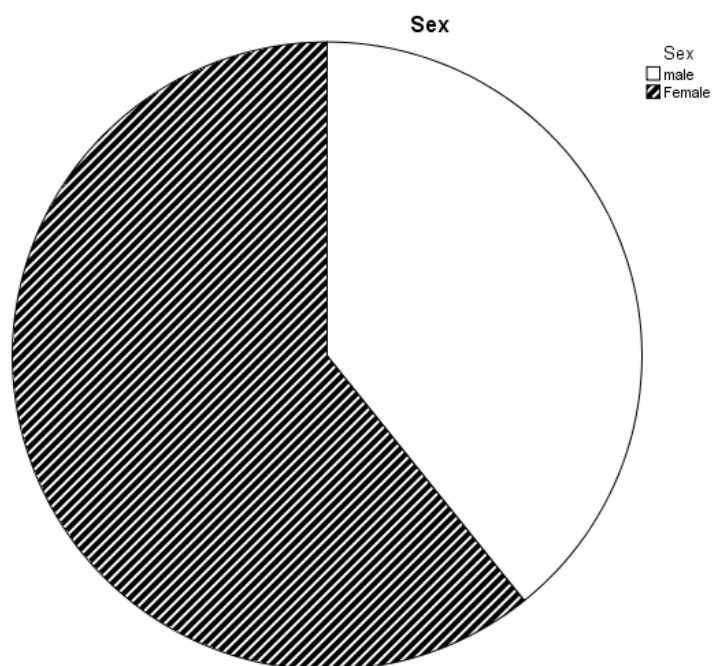
59 (28.2%) of the respondents were between the age of 17- 19 years (Group 1), 144 (68.9%) of the respondents were between the age of 20- 26 years (Group 2), 6

(2.8%) of the respondents were between the age of 39- 55 years (Group 3).



**Fig. 2: Age Distribution**

Out of the 209 sample population, 82 (39.2%) of the respondents were males and 127 (60.8%) were females.



**Fig. 3: Sex Distribution**

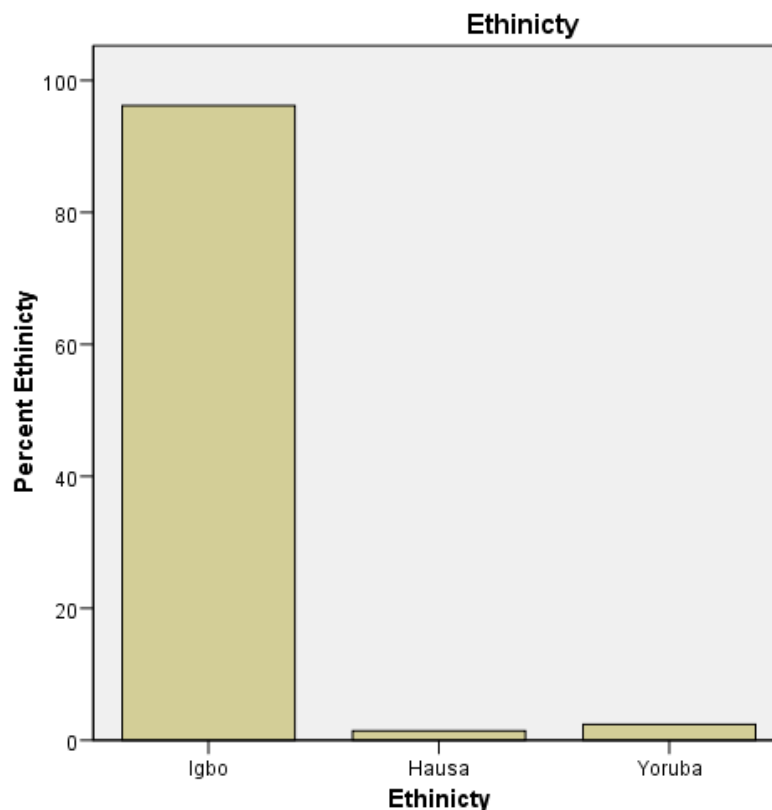


Fig. 4: Ethnicity

201 of the respondents were Igbo (96.2%), 3 (1.4%) were Hausa, and 5 (2.4%) were Yoruba.

200 (95.7%) of the total sample population were single, 3 (1.4%) were married and 6 (2.9%) were separated. 206 (98.6%) of the total sample population were Christians while 3 (1.4%) were traditional worshippers.

### Knowledge of HIV

Ten questions were used to assess respondent's knowledge of HIV. 123 (58.9%) respondents said that HIV could be spread through saliva and 76 (36.4%) respondents answered no, while 10 (4.8%) respondents did not give any answer. 203 (97.1%) respondents agreed that Needle prick injury from a used needle could transmit HIV virus and 4 (1.9%) respondents answered no, while 2 (1.0%) respondents did not give any answer. 206 (98.6%) respondents said that multiple sexual partners could increase the risk of HIV infection and 3 (1.4%) respondents answered no.

183 (87.6%) respondents said that HIV could be transmitted from mother to child through breastfeeding and 24 (11.5%) respondents answered no, while 2 (1.0%) respondents did not give any answer. 29 (13.9%) respondents agreed that long distance drivers were more predisposed to HIV Infection and 142 (67.9%) respondents answered no, while 38 (18.2%) respondents did not respond to the

question. 195 (93.3%) respondents agreed that sex workers were predisposed to HIV infection and 11 (5.3%) respondents answered no, while 3 (1.4%) respondents did not respond to the question. 207 (99.0%) respondents agreed that HIV Infection could be contracted through blood transfusion and 2 (1.0%) respondents answered no.

18 (8.9%) respondents agreed that HIV/AIDS could be treated completely and 186 (89.0%) respondents answered no, while 5 (2.4%) respondents did not respond to the question. 159 (76.1%) respondents agreed that HIV infected person could be very healthy and 41 (19.6%) respondents answered no, while 9 (4.3%) respondents did not respond to the question.

### Sexual Behavior

A good number 80 (38.3%) of the respondents admitted to having had sex before, while majority of them 82 (39.2%) indulged in male-female kind. In the past 12 months majority 79 (37.8%) didn't know the number of partners they had sex with while many 63 (30.1%) stated that they had with only one. Most of the respondents 63 (30.1%) admitted to having used condom the last time they had sex. However on the issue of prevention most of the respondents 122 (58.4%) opted for abstinence as the most reliable method of prevention. Many opted for vaginal sex as

the kind of sex to be avoided as a way to reduce HIV infection as against oral, anal sex and sex toys. Before having intercourse with a new partner majority of the respondents 170 (81.3%) agreed that one should confirm the HIV status of himself/herself.

Table below shows the association between some of the respondent's characteristics and knowledge of HIV. The older age group ( $\geq 25$  years) and the married/co-habiting/others were more knowledgeable of HIV than the younger respondents

and the single, respectively. But the differences were not statistically significant ( $p = 0.387$ ).

However, males were significantly more knowledgeable than females ( $p < 0.001$ ). Also, those that did not reveal whether they had ever had sex or not, as well as those who had never had sex were more knowledgeable than those who had ever had sex,  $p = 0.002$ . This was also statistically significant.

**Table: Respondents' characteristics and knowledge of HIV**

Characteristics	Knowledge		$\chi^2$	p-value
	Good n (%)	Poor n (%)		
<b>Age</b>				
$\leq 24$	124 (63.6)	71 (36.4)	Fisher's exact	0.387
$\geq 25$	11 (78.6)	3 (21.4)		
<b>Sex</b>				
Male	65 (79.3)	17 (20.7)	12.707	<0.001*
Female	70 (55.1)	57 (44.9)		
<b>Marital status</b>				
Single	126 (63.0)	74 (37.0)	Fisher's exact	0.028*
Married/others	9 (100.0)	0 (0.0)		
<b>Ever had sex</b>				
Yes	43 (53.8)	37 (46.3)	11.482	0.002*
No	50 (63.3)	29 (36.7)		
Rather not say	40 (83.3)	8 (16.7)		

\*Statistically significant

## DISCUSSION

The study assessed the level of knowledge, management of HIV and its impact on sexual behaviour of undergraduate students. The study showed that some of the students were knowledgeable of HIV, including its aetiology, mode of transmission, and drug treatment. This we believe may aid in the diminishing of the number of transmission of the infection from one person to another as well as reduce the number of those living with HIV. Our findings agree with that of Srivastava et al., (2021) who reported that awareness of HIV was more in the adolescent age group.

The results of this study carried out on COOU Igbariam students showed that majority of the students despite being of non-medical discipline were significantly aware of HIV. This is similar to knowledge of HIV result of the study carried out by Unadike et al., (2012) amongst preclinical students of university of Uyo on awareness, knowledge and perception of HIV/ AIDS and sexual behaviour. The difference was in condom use. Their study showed that about 83.9% could identify the routes of transmission, with 70% condom use. In our study we recorded condom use of 30.1%. Low condom use may lead to high incidence of STIs and

unwanted pregnancy. In matters of HIV/ AIDS prevention is better than cure. Condom use is preventive. More attention needs to be paid to this aspect of prevention.

The prevalence of HIV is a worldwide threat to public health. There is still no cure for HIV. In addition to drug treatment that prolongs the lives of those infected, health education is one of the most effective preventive measures (Dokubo et al., 2014).

On the aspect of sexual behaviour, from the finding of this study only 30.1% actually used condom regularly during sexual intercourse despite their knowledge of condom as being protective against HIV infection. This is similar to the study carried by Izeke et al (2014). They reported low practice of condom usage among sexually active students in a tertiary institution. The use of condom is one of the best methods of coital practices that would protect one from contracting the disease. Low condom use has strong implication for HIV transmission, including STIs.

When asked however, about the number of partners they have had intercourse with in the past one year, about 30% of the study group stated one partner. 37.8% did not know the number of partners they had sex with.



On the aspect of the effect of knowledge of HIV on the sexual behaviours of COOU Igbariam non-medical students one may say that knowledge of HIV may influence the sexual behavioural practices of the tertiary students positively as many of the respondents responded correctly on the questions posed to denote their level of acquaintance on safe sexual practices. The study revealed that if one was knowledgeable enough about HIV it extended also to one's awareness of some facts about medical management of HIV for those infected and for those trying to prevent it on account of exposure. Our findings revealed that despite high knowledge of HIV the use of condom, one of the key aspects of prevention, was low. This agreed with that reported by Ugwu et al., (2022). They documented a contraceptive use of 34.6% despite increased awareness of HIV. Up to 90% said that use of ART can significantly reduce the burden of the ailment as well as help in improving the lives of the already infected individuals.

## CONCLUSION

In conclusion HIV awareness, drug treatment, and its impact on the sexual behaviours among the study group of non-medical students could be said to be high. However condom use was low. In addition, being aware of HIV influences positively the sexual behaviour, willingness to be tested, access to antiretroviral drugs, and other medical services offered to HIV/AIDS patients.

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