

## Original Research Article

# Sexual behaviour and perception of HIV/AIDS among students in Ebonyi State University Abakaliki, Southeast Nigeria

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## ABSTRACT

**Background:** The sexual behaviour and practice increases the chances of contracting sexually transmitted infections including HIV/AIDS. Knowledge and perception of HIV/AIDS may be a determinant to sexual behaviour of the young adults. There this study aims to evaluate the sexual behaviour and perception of HIV/AIDS among university undergraduates of the Ebonyi State University Abakaliki.

**Methods:** This was a cross-sectional descriptive study conducted between 5<sup>th</sup> March 2016 and 30<sup>th</sup> March 2016 among 406 undergraduates. An anonymous, self-administered, pre-tested questionnaire was used to collect the data from the participants. Statistical analysis was done using Epi Info 7.2.1.

**Results:** The modal age group for sex debut was 20-24 years while the mean age at coitache among the study group was 20.2±4.6 years. More than a half of the respondents 173 (56.7%) had only one sex partner while the remaining had two or more sexual partners. Condom use in the last sexual intercourse was low as just more than a third of the respondents used condoms in their last sexual intercourse. Almost all the student had heard of HIV/AIDS 403 (99.3%). The mass media was the commonest source of obtaining information with regards HIV/AIDS among the study population. Males are more likely to have had sex compared to the female sex. Student who take alcohol regularly and those that take tobacco in any form were also more likely to have had sex compared to those who do not take alcohol or tobacco, (p value <0.0001).

**Conclusions:** Sex is a common practice among the study population. Majority engage in risky sexual practices. There is an urgent need to improve the campaign on safer sex using the mass media as a veritable medium.

**Keywords:** Sexual behaviour, Perception, HIV/AIDS, Students, Abakaliki

## INTRODUCTION

Sexually transmitted infections (STIs) and Human Immunodeficiency Virus (HIV) are the most common group of notifiable infectious diseases and are responsible for a variety of public health problems among the youth.<sup>1-10</sup> Sexually transmitted infections rank among the 5 most important causes of healthy reproductive lives lost in

developing countries like Nigeria. Sub-Saharan Africa has the highest rate of STI or HIV.<sup>3</sup> The youth are the highest group at risk for STI or HIV.<sup>4,5</sup> This affects all segments of the population but young females are largely more affected than the young males.

The prevalence of HIV in Ebonyi state is 2.8%.<sup>6</sup> HIV or AIDS is the leading cause of adult death.<sup>7-9</sup> Half of all

new cases of HIV infection occurs commonly in people under 25 years.<sup>10</sup> STI/HIV is predominantly spread through heterosexual intercourse.<sup>8,10,11</sup> The ages between 15- and 24 years represent the highest group at risk of STIs. The youths which include university undergraduates are the high risk; the reasons have been adduced to a number of factors which include lack of communication between parents and child about sexuality, high level of illicit sex, high incidence of campus prostitution, poverty, harsh economic conditions among other factors.<sup>4,5</sup>

HIV or AIDS is commonly transmitted through sexual intercourse.<sup>7</sup> It is more likely to be transmitted to the receptive partner than the insertive especially in vaginal and anal intercourse.<sup>7-15</sup> Women are more vulnerable to this infection because they are more often the receptive partners especially in sub-Saharan Africa.<sup>16-20</sup> Sexual transmission is the commonest mode of HIV transmission and accounts for 70-80% of transmission globally. Heterosexual intercourse is the primary mode of transmission in 80-90% of cases in sub-Saharan Africa.<sup>12-13</sup> The presence of STIs is associated with increased risk of acquiring HIV infection while concurrent infection is associated with increased transmission to a sexual partner.<sup>10,13,14</sup> The other means of transmission of HIV or AIDS include direct exposure to infected blood or blood products, blood transfusion, injection with contaminated needles and syringes, needle stick injury and mother to child transmission during pregnancy, at birth and breastfeeding.<sup>21</sup>

Risky sexual behaviours among Nigerian students include premarital sex, multiple sexual partner has been implicated as a major factor contributing to the high prevalence of HIV among Nigerian youth.<sup>21</sup> The family background has a significant influence on sexual behavior as students from poor homes may seek support from men trading sex and thus risk HIV and other STIs for security.<sup>22</sup> Sexual activities among adolescents have been increasing worldwide.<sup>23</sup>

The awareness of HIV/AIDS is generally high in Nigeria among university students about 93.8% but the correct knowledge of all routes of transmission and prevention have remained low.<sup>24</sup> Despite the high level of awareness of HIV/AIDS among the youths, they still engage in risky sexual behaviours. Therefore, the aim of this study was to assess the sexual behaviour and perception of HIV/AIDS among Ebonyi State University students.

## METHODS

### Study area

Ebonyi state is located in South Eastern Nigeria, and was created on 1<sup>st</sup> October 1996. It has 13 local government areas. Abakaliki is the state capital and is the only urban settlement in the state which also has one semi urban community; the rest are rural settlements. It has a total

population of 79,280 based on the 2006 census and occupies a land mass of 5,932 kilometers square. Ebonyi state university is located in Abakaliki. It was formed in 1999. It has 11 faculties, 63 departments and 4 campuses.

### Study design

This was a questionnaire-based cross-sectional descriptive study involving students of Ebonyi State University, Abakaliki. The study was conducted between 5<sup>th</sup> March 2016 and 30<sup>th</sup> March 2016.

### Sample size determination

The sample size of 424 was determined using Taylor formula for sample size determination,

$$N = Z^2 pq / d^2$$

where N is the desired sample size population, Z is the standard normal deviate- set at 1.96 and corresponding to 95% confidence level, p is 50% (0.5), q is 1-p and d is 0.05 (5% error margin). An attrition rate of 10% was used to accommodate attritions and omissions during the study.  $N = (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2 = 385$ . Attrition rate of 10% = 38.5. Total sample size = 424.

### Data collection

The instrument for the data collection was a structured questionnaire which was administered to consenting students to fill and was collected at the spot. The entire questionnaire was distributed equally across the 11 faculties in Ebonyi State University hence 38 students will be selected randomly from each faculty. To achieve this piece of papers equivalent to the number of students sampled was labeled "Yes" and "No". Students who picked a "Yes" were given a Questionnaire while those that picked "No" were given. Each respondent was allowed to freely consent or decline participating in the study.

### Data analysis

Data analysis was done using Epi info software (7.2.1 CDC Atlanta Georgia). The results were expressed as frequency tables, percentages, mean and standard deviation. Associations between categorical data would be analyzed using  $\chi^2$ , with a p value of 0.05 considered statistically significant.

### Ethical consideration

Permission to carry out this research was sought and obtained from the Research and Ethics Committee of the Federal Teaching Hospital Abakaliki. Permission to carry out the study was also got from the deans of the faculties. A signed printed consent was obtained from each participant before being recruited into this study.

Participants were educated on the aim and objectives of the study and participation was voluntary. All information obtained from the participant was kept confidential by the researcher.

## RESULTS

Table 1 shows the demographic status of the respondents in the study. Majority of the respondents were aged between 20 and 24 years, most of them were males and single. Christianity was the commonest religion and majority of the respondents were in the 200 level of their various department.

**Table 1: Socio-demographic characteristic and habit of the respondents.**

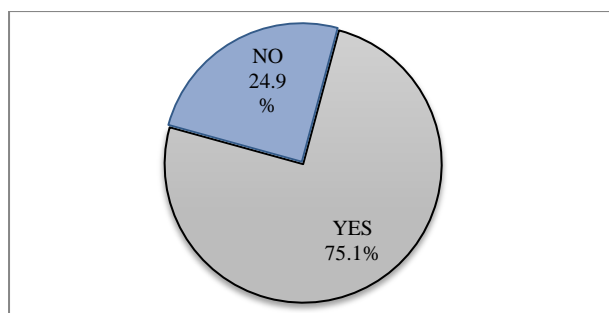
Characteristics	Frequency	%
<b>Age (years)</b>		
<20	109	26.8
20-24	162	40.0
25-29	91	22.4
≥30	44	10.8
<b>Gender</b>		
Female	191	47.0
Male	215	53.0
<b>Marital status</b>		
Married	96	23.6
Single	298	73.4
Divorced/widow	12	3.0
<b>Religion</b>		
Christianity	388	95.6
Islam	4	1.0
Traditional	14	3.4
<b>Class/level</b>		
100	88	21.7
200	102	25.1
300	97	23.9
400	76	18.7
500	33	8.1
600	10	2.5

Table 2 shows the sexual experiences of the respondents. About three quarter of the respondent had ever had sex 305 (75.1%). The modal age for sex debut was 20-24 years while the mean age at coitache among the study group was 20.2±4.6 years. More than a third of the respondents have sex less than once per month while 13.8% gave no response to their sexual frequency. More than a half of the respondents 173 (56.7%) had only one sex partner while the remaining had two or more sexual partners. Condom use in the last sexual intercourse was low as just more than a third of the respondents used condoms in their last sexual intercourse. Most respondents who did not use condom in their last sexual intercourse; were married 73 (38.2%) while 33 (17%) did not like its use. The commonest sexual practice among the respondents was heterosexual with condom use 102

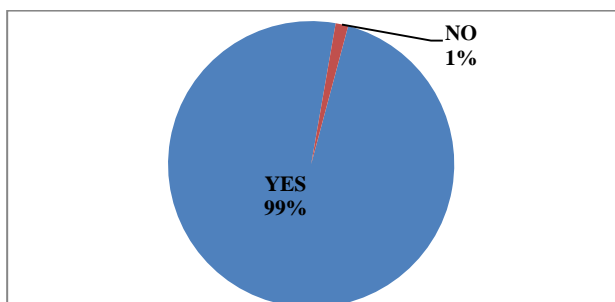
(33.4%), 87 (28.6%) of the respondents engage in unprotected sex while 66 (21.6%) engage in transactional sex. Peer pressure was the commonest reason given for the sexual practice they engage in. More than 80% of the respondents take alcoholic beverages in contrast just less than a quarter of the respondents take tobacco in any form.

**Table 2: Sexual experience of the study participants.**

Parameter	Frequency	%
<b>Have ever had sex</b>		
Yes	305	75.1
No	101	24.9
<b>Age at first intercourse (years)</b>		
10-19	65	21.3
20-24	166	54.4
25-29	44	14.5
≥30	30	9.8
<b>How frequent do you have sex</b>		
<once per month	112	36.7
2-3 per month	56	18.4
At least once per week	32	10.5
No pattern	63	20.6
No response	42	13.8
<b>How many sexual partners</b>		
One	173	56.7
More than one	132	43.3
<b>Used condom in last sex</b>		
Yes	114	37.4
No	191	62.6
<b>Reason for non-use of condom (no=191)</b>		
Married	73	38.2
Do not like it	33	17.3
Not available	46	24.1
Partner refusal	25	13.1
Cost	9	4.7
No response	5	2.6
<b>Type of sexual practice</b>		
Heterosexual (protected)	102	33.4
Unprotected	87	28.6
Transactional	66	21.6
No response	50	16.4
<b>Reason for sexual practice</b>		
Marriage	96	31.5
Financial constraint	91	29.8
Common practice with peers	99	32.5
No response	19	6.2
<b>Do you take alcohol regularly</b>		
Yes	334	82.3
No	72	17.3
<b>Do you take tobacco in any form</b>		
Yes	97	23.9
No	309	76.1



**Figure 1: Ever had sex.**



**Figure 2: Those that have heard about HIV or AIDS.**

Table 3 show the knowledge and perception of HIV or AIDS. Almost all the student had heard of HIV or AIDS 403 (99.3%). About 3% of the respondents had a misconception of how HIV or AIDS is contracted 12 (3%). More than ninety percent of the respondents agreed that HIV or AIDS can be prevented. While a majority were aware of the methods of prevention of HIV or AIDS 34 (5%) of the respondents also had a misconception to the method of prevention of HIV or AIDS. Mass media was the commonest source of obtaining information with regards HIV or AIDS among the study population.

Table 4 shows a cross tabulation of some social and demographic characteristics to having had sex. The age of the respondents was not a significant determinant of

having had sex. On the contrary the male are more likely to have had sex compared to the female sex. Student who take alcohol regularly and those that tobacco in any form were also more likely to have had sex compared to those who do not take alcohol or tobacco,  $p$  value  $<0.0001$ .

**Table 3: Knowledge and perception of HIV/AIDS.**

Parameters	Frequency	%
<b>Have you heard of HIV?AIDS</b>		
Yes	403	99.3
No	3	0.7
<b>How is HIV/AIDS contracted*</b>		
Hugging	9	1.3
Mosquito bites	12	1.7
Kissing	35	5.1
Sharing sharps	198	28.7
Transfusion of unscreened blood	107	15.5
Unprotected sex	329	47.7
<b>Can it be prevented</b>		
Yes	379	93.3
No	27	6.7
<b>How can it be prevented*</b>		
Sexual abstinence	276	40.4
Consistent use of condom	181	26.5
Avoid multiple sexual partners	125	18.3
Medical check up	67	9.8
Taking antibiotics	34	5.0
<b>Source of information</b>		
Health personnel	108	26.6
Mass media	138	34.0
Partner	54	13.3
School	78	19.2
Place of worship	28	6.9

\*: Multiple answers were allowed.

**Table 4: Cross tabulation of sexual experience with some social and demographic characteristics.**

Parameters	Total	Ever had sex	Have not had sex	Chi square	P value
Age (yrs)					
<20	109	65	44	0.0005	0.99
20-24	162	124	38		
25-29	91	86	5		
≥30	44	30	14		
Gender					
Female	191	121	70	26.63	<0.0001
Male	215	184	31		
Do you take alcohol regularly					
Yes	334	289	45	138.74	<0.0001
No	72	16	56		
Do you take tobacco in any form					
Yes	97	86	11	12.43	0.0004
No	309	219	90		

## DISCUSSION

In this study 75.1% of the respondents have ever had sexual intercourse. This value is similar to the 72.7% and 76.8% reported by Okafor and co-workers in Enugu Nigeria and in a similar study by Fawole in Illorin respectively.<sup>22,23</sup> This is however larger than the 50% reported by Alamrew in Ethiopia and the 52.0% reported in a similar study in Port Harcourt Nigeria.<sup>24</sup> This difference may be a reflection on the study group, Alamrew studied adolescents in college, while the majority of the respondents in the study in Enugu were in their 300 L and had been more exposed to campus life.<sup>17,22</sup> The mean age at first intercourse in this study was 20.4±4.6 years. This value is similar to that obtained in Enugu but it is much higher than 17.7 years and 17.0 years reported in Abuja and in Port Harcourt respectively.<sup>1,15,24</sup> This difference may not be readily explained from this study.

The coital frequency of the respondents vary markedly, more than a third of the respondents have sex less than once per month while 13.8% gave no response to their sexual frequency. 43.3% of the respondents had more than one sexual partner. The youths are more likely had irrational sexual behaviours.<sup>12</sup> A study done in Abuja showed that having multiple sexual partners was independent of gender and that more men had multiple sexual partners than women.<sup>3</sup> In another study it was reported that males are 2-4 times likely to have multiple sexual partners than females.<sup>1,7,18</sup> In the study done by Amu et al 42.3% of the sexually active had multiple sexual partners and this was similar to our finding, however in a similar study in Nigeria 54% of the sexually active respondents had multiple sexual partners.<sup>13,19</sup> The types of sexual relationships seen among student on campuses were casual partner, boyfriend/ girlfriend, live-in partners and sex workers.<sup>1,3,13</sup> This finding was similar to the result obtained from this study where majority involve in heterosexual intercourse while some engage in transactional sex to make ends meet.<sup>1,23</sup>

Condom use reported in the last sexual intercourse was low as just more than a third of the respondents used condoms in their last sexual intercourse. Low condom use had been reported in other studies.<sup>7-10</sup> This is particularly worrisome as unprotected sexual intercourse with multiple sexual partners increases the risk of sexually transmitted infections including HIV/AIDS. The reason given for nonuse of condom during sexual intercourse is similar to the findings in other studies.<sup>7,9,11-13</sup> In this study peer pressure was the commonest reason given for the type of sexual practice by the respondents. The use of alcohol and tobacco was also high in this study as well as in similar other studies.<sup>8,9,13</sup>

The knowledge of HIV or AIDS was high in this study. Similarly high knowledge had been shown in other similar studies.<sup>7-13</sup> This high awareness may not be unrelated to the increased awareness created by the media

houses and print media as these represented the commonest source of awareness of HIV or AIDS.<sup>1,10,11,15</sup>

Although the knowledge of HIV or AIDS was high some student had misconception about its transmission and prevention. This might be responsible for high incidence of sexual debut and low condom use among the respondents.

The age of the respondents was not a significant determinant of having had sex, although a subgroup analysis showed that students aged between 20 and 24 years are more likely to have had sex than other age group. On the contrary the male are more likely to have had sex compared to the female sex. Males are also more likely to be influenced by peer pressure and most of them take alcohol frequently and also use tobacco in various form. Student who take alcohol regularly and those that take tobacco in any form were also more likely to have had sex compared to those who do not take alcohol or tobacco, p value <0.0001. These are substances which may becloud common reasoning. Alcohol and tobacco use have previously been reported to be associated with early coitache.<sup>1,15</sup>

## CONCLUSION

In conclusion sex is a common practice among the study population. Majority engage in risky sexual practices. There is an urgent need improve the campaign on safer sex using the mass media as a veritable medium.

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