



## **Sexual behaviour among students in tertiary institutions in Kano, northern Nigeria**

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### **KEY WORDS:**

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### **Abstract**

**Background:** There is a global trend towards early onset of sexual activity among youths with consequences of sexually transmitted infections (STIs) and unwanted pregnancies. The study was therefore conducted to assess sexual activity, knowledge and perception of risk, use of protective measures and prevalence of high-risk sexual behaviour among students of tertiary institutions in Kano, Northern Nigeria.

**Methods:** Structured, close-ended questionnaires were administered to 300 students of Bayero University, Kano and the Federal College of Education, Kano to collect the relevant information using a cross-sectional descriptive study design.

**Results:** Out of the 300 respondents, 159 (53.0%) have had sexual intercourse at least once. The mean age at sexual debut was  $18 \pm 2$  years. Although all respondents knew that unprotected sexual intercourse is associated with STIs, there were still misconceptions about the transmission of HIV and cure for AIDS. One hundred and sixty eight (56.0%) of the 300 students had inadequate knowledge about what constitute high-risk sexual behaviour. Only 39 (24.5%) of the sexually active respondents reported using a condom always while 45 (28.3%) never used it. The most common high-risk sexual behaviour among the students was multiple sexual partners which was practised by 73 (51.7%) and anal sexual intercourse 17 (12.1%) among the sexually active respondents.

**Conclusion:** In the light of the high level of sexual activity detected, it is recommended that family life or sexuality education, starting early, through primary, secondary and tertiary education be institutionalised. This is to equip our youths with correct information to enable them make informed choices about responsible sexual life.

### **Introduction**

There is no doubt that sexual instinct is one of the strongest instincts in man.<sup>1</sup> There is a global trend towards early onset of sexual activity among youths<sup>2-4</sup>. Factors such as early onset of menarche, changing values due to increasing urbanization, exposure to foreign cultures through rural-urban migration, tourism, mass media, internet, erosion of traditional norms and values, peer influence and lack of parental control have all been implicated as factors responsible for this trend.<sup>2, 5, 6</sup>

The consequences of this early sexual debut without precaution include the risk of acquiring sexually transmitted infections and unwanted pregnancies among youths with its sequelae of unsafe abortions. Unfortunately, the adolescents

and youths are the same group that are not yet in stable relationships, engage in opportunistic sexual encounters and generally engage in high risk sexual behaviours.<sup>7</sup> These high risk sexual behaviours include, multiple sexual partners, a sexual partner with unknown sexual history or high risk sexual practices, use of drugs or alcohol in a situation where sex might occur, a partner who is an intravenous drug user, anal sexual intercourse, mouth to genital contact and having sex without any protection.<sup>5</sup> Another concern is the fact that youths do not perceive their high-risk status in spite of indulging in these unsafe sexual practices.<sup>2, 5</sup> It is therefore no surprise that the Joint United Nations Programme on AIDS (UNAIDS) reported that the rates of newly acquired HIV infections are highest in the 15-25 years age group and that this

group accounts for about 60% of the global total of HIV infected persons.<sup>8</sup> Similarly, the highest seroprevalence rate of HIV in Nigeria is in this age group.<sup>9</sup> The majority of students in tertiary institutions are single, young adults who easily fall prey to youthful exuberance. This, with the liberal nature of campus life predisposes them to high-risk sexual behaviour. There have been suggestions that knowledge about STI transmission and protective measures may reduce the risk faced by young persons.<sup>10</sup> The study therefore assessed sexual activity, knowledge and perception of risk, use of protective measures and prevalence of high-risk sexual behaviour among students of tertiary institutions in Kano, Northern Nigeria.

## Materials and Methods

### Study location

Bayero University, Kano and the Federal College of Education, Kano were randomly selected for study by balloting from among the twelve tertiary educational institutions in Kano State. The University, which was established in 1975, has two campuses and eight faculties, namely; Arts and Islamic studies, Education, Science, Technology, Law, Medicine, Agriculture, Social and Management sciences. It also has a student population of 17,665 excluding remedial and postgraduate students. The Federal College of Education, the other location of the study has five schools including, Arts, Social sciences, Languages, Vocational studies and Remedial studies. The College had a student population of 9,078 excluding remedial students. Permission for the conduct of the study was obtained from the Dean of students' affairs of the University and the Provost of the College of Education respectively. Informed consent of the students was also obtained before administration of questionnaires.

### Methods

The study was cross-sectional and descriptive in design. A minimum sample size of 272 was calculated using an appropriate statistical formula [ $n = Z^2pq/d^2$ ]<sup>11</sup> and a prevalence of 23% reported among students in Benin City<sup>12</sup>. This was rounded up to 300.

Using a multistage sampling method, four faculties (Arts and Islamic studies, Science, social and Management studies and Law) were randomly selected from the University and from each of the selected faculties one department was randomly selected. The questionnaire was self-administered to students consecutively as they came to register in the department until 50 students each were studied in each of the four sampled departments. Students that declined participation were replaced

by those not initially sampled. A similar method was used in the College of Education, where two schools (Languages and Vocational studies) were selected randomly from the four schools (after excluding School of Remedial Studies). From each of the selected schools, one department was randomly selected, and the questionnaire was administered on a systematic sample of students as they came to register until 50 students each were obtained from the two departments making a total of 100 students in the college.

A self-administered structured questionnaire with mostly closed-ended questions was used. Data was collected on socio-demographic characteristics, sexual exposure and practices and use of condoms. Information was sought on risky sexual behaviour, that is, multiple sexual partners, anal and oral sex, homosexuality and use of alcohol. Furthermore, their knowledge of what constitutes high risk behaviour and its consequences was assessed. Responses to questions were scored with the total score ranging from 0-13. Respondents with scores of 7-13 were considered to have adequate knowledge, while those with scores of 6 and below were considered to have inadequate knowledge.

The data was analysed using absolute numbers, percentages, range, mean and standard deviation as appropriate using the Epi- Info version 6.0 statistical software (CDC Atlanta, Georgia, USA).

## Results

### Socio-demographic characteristics

Data was collected on a total of 300 respondents, 200 from Bayero University and 100 from the College of Education. Table 1 shows the socio-demographic characteristics of the respondents. Majority of respondents, 172 (57.3%) were between 20-25 years of age with a mean age of  $23.2 \pm 2.4$  years. There were 180 males and 120 females giving a sex ratio of 1.5:1. The Hausa ethnic group constituted the majority 204 (68.0%) of the respondents followed by Yoruba 39 (13.0%) and Igbo 30 (10.0%). The remaining 27(9.0%) were from other Nigerian tribes including Kanuri, Tiv, Egbira, Nupe and Babur. All but 10% of the respondents were single. Most of the students (78.0%) were Muslims while the remaining (22.0%) were Christians.

### Sexual activity

Out of the 300 respondents, 159 (53.0%) had had sexual intercourse at least once. When considered separately, 98 (54.4%) of the 180 male respondents had sexual intercourse at least once compared to 61 (50.8%) of the 120 female

students. Overall, the mean age ( $\pm$ SD) at first sexual intercourse was  $18 \pm 2$  years while that of the males was 17.3 years and females 18.1 years. Twenty three (14.5%) of those that had had sexual intercourse started between 11 and 15 years of age (Table 2).

**Table 1: Socio-demographic characteristics of the students (n=300)**

Variable	No. (%)
<b>Year of study</b>	
1 <sup>st</sup> year	109 (36.3)
2 <sup>nd</sup> year	86 (28.7)
3 <sup>rd</sup> year	57 (19.0)
4 <sup>th</sup> year	48 (16.0)
Total	300 (100.0)
<b>Age(yrs)</b>	
15-19	38 (12.7)
20-24	172 (57.3)
25-29	90 (30.0)
Total	300 (100.0)
<b>Ethnicity</b>	
Hausa	204 (68.0)
Yoruba	39 (13.0)
Igbo	30 (10.0)
Others	27 (9.0)
Total	300 (100.0)
<b>Marital status</b>	
Married	30 (10.0)
Single	270 (90.0)
Total	300 (100.0)
<b>Religion</b>	
Muslim	234 (78.0)
Christian	66 (22.0)
Total	300 (100.0)

### Knowledge and perception of risk

Although all respondents said some risk was had inadequate knowledge of the acts that constitute high risk sexual behaviour. Students mentioned STIs such as gonorrhoea, syphilis, genital herpes, genital warts, HIV/AIDS and unwanted pregnancy as some of the risks associated with unsafe sex. Regarding common symptoms of STIs, respondents identified genital ulcers, penile and vaginal discharge and pruritus trvulvae. There were some misconceptions about the transmission of HIV. Seven students (2.3%) still thought sharing utensils and toilet facilities could transmit the virus. Similarly, 15 (5.0%) of the respondents said AIDS

was curable. In response to what constitutes high-risk sexual behaviour, respondents identified unprotected sexual intercourse, multiple sexual partners and having sex with commercial sex workers. When the students' knowledge of high risk sexual behaviour was scored, only 132 (44.0%) had adequate knowledge about high-risk sexual behaviour while the remainder had inadequate knowledge.

On the perception of risk among respondents, 114 (71.7%) of the 159 sexually active students considered themselves as being at low risk, the remaining 45 (28.3%) perceived their sexual behaviour as risky. Their main sources of information include; television (22.5%), health workers (18.0%), newspapers (17.4%), radio (15.7%), campus (12.3), friends (10.3%) and others (3.8%).

### Use of protective measures

On methods they employ to protect themselves against sexually transmitted diseases, 114 (71.7%) mentioned use of condom, 57 (35.8%) indicated they take antibiotics while 54 (34%) said they choose healthy looking sexual partners. They also mentioned abstinence, oral contraceptive pills, injectables and coitus interruptus as methods of preventing unwanted pregnancies. Table 3 shows the pattern of (male) condom use among students. It can be seen that 39 (24.5%) of the sexually active respondents reported using a condom always, 29 (18.2%) said they used it regularly with occasional misses, 46 (28.9%) used it sometimes and the remaining 45 (28.3%) never used it. A higher proportion of male students 75 (41.7%) used condoms during sexual intercourse compared to 39 (32.5%) female students. However, this difference was not statistically significant ( $\chi^2=4.65$  df = 3  $P = 0.2$ ). Some of the factors militating against condom use include "How to tell him to use condoms" stated by 8 (15.7%) sexually active female respondents; "He will think I have been engaging in sex" reported by 23 (45.1%) of sexually active females; "Condoms are not sold in secret" mentioned by 14 (15.5%) of sexually active males. Furthermore, 53(58.9%) of sexually active males and 16 (31.4%) of sexually active females respectively indicated "reduced sexual pleasure" as their reason for not using condoms regularly.

### Prevalence of high-risk sexual behaviour

Table 4 shows that the commonest high-risk sexual behaviour among the sexually active students was having multiple sexual partners mentioned by 73 (51.7%), followed by history of STIs 42 (29.8%). Other high-risk behaviours reported by minority of respondents include anal sexual intercourse 17 (12.1%), alcohol consumption 18(12.8%) and intravenous drug use 9 (6.4%).

**Table 2: Distribution of respondents by age at sexual debut (n=159)**  
Frequency (%)

Age (yrs)	Males	Females	Total
	No. (%)	No. (%)	No. (%)
11-15	14 (14.3)	9 (14.8)	23 (14.5)
16-20	62 (63.3)	27 (44.3)	89 (55.9)
21-25	21 (21.4)	18 (29.5)	39 (24.5)
>25	1 (1.0)	7 (11.4)	8 (5.0)
Total	98 (100.0)	61 (100.0)	159 (100.0)

## Discussion

Overall, about half of the students (53.0%) had sexual intercourse at least once. This is lower than the figures of 63.0%<sup>13</sup> and 78.8%<sup>6</sup> obtained in other Nigerian studies and also, findings from other African countries.<sup>14-15</sup> For instance, Oindo reported that 73.5% of youths in a Kenyan study were sexually active.<sup>14</sup> Nevertheless; our result is comparable with the findings at Midwestern University in the United States<sup>16</sup> but much higher than the 11% reported among Hong Kong undergraduates.<sup>17</sup> Cultural differences and attitude towards sex education could account for these differences. There is some evidence that practice of religion among adolescents and youths is associated with delayed onset of sexual activity.<sup>18</sup>

The mean age at sexual debut was 17.3 years for males and 18.1 years for females. This finding is similar to the findings of Oindo in Kenya where he found that the first sexual experience among youths was within the 15-19 year age group.<sup>14</sup> However, the result of the present study is higher than the figures obtained during the Nigerian national HIV/AIDS and reproductive health survey (NARHS).<sup>19</sup> The survey found a mean age at first sexual intercourse of 15.2 years in the North West regardless of marital status. The difference could be due to the fact that a higher proportion of out of school female youths are already married in the northern part of Nigeria<sup>20</sup>. The earlier sexual debut among males compared to females is similar to what was reported by Oladipo and colleagues<sup>21</sup> in Oyo state where they found that males were more likely to have had sexual intercourse by the age of 20 years compared to females.

Majority of the respondents (56%) had inadequate knowledge of what acts constitute high-risk sexual behaviour and the implications of such acts. Although majority of the respondents were aware of the risks associated with unsafe sexual intercourse

there were some misconceptions about the transmission of HIV. Knowledge about the nature and transmission of other STIs was also lacking. This is similar to the findings by Harding et. al<sup>22</sup> in a study of Nigerian university students' knowledge, perception and behaviour about HIV/AIDS, where they also observed misconception about modes of transmission. Elsewhere, Gorkengin<sup>23</sup> reported inadequate knowledge about HIV and other STIs among students in Turkey, but Sallah et. al<sup>15</sup> reported in his study that undergraduates at University of Benin, Togo had adequate knowledge on the subject. This is an indication that in Nigeria, even undergraduates have insufficient sexuality knowledge to guide them against the risks associated with unsafe sex. The cultural barriers to sex education at home and the controversy surrounding the introduction of family life education in schools are some of the factors restricting access of youths and adolescents to correct information regarding sex. Additionally, the unsubstantiated claims and uncontrolled advertisements of "cures" for AIDS and other STIs in print and electronic media in Nigeria could also be responsible for the misinformation about the existence of a cure for AIDS.

Only 19% of the respondents perceived themselves as being at high risk despite the fact that more than half of the sexually active students had multiple sex partners and only about a quarter of them used condom always. This is particularly dangerous because it gives them a false sense of security. This attitude was also observed among students of Midwestern University where despite high risk sexual behaviour students were "not concerned" about contracting STIs<sup>16</sup>.

Of those who use condoms among the sexually active respondents, only 24.5% use it "always", 18.2% use it "regularly", 28.9% use the device "sometimes" while 28.3% had "never" used it. These figures of usage are low compared to 67% of

**Table 3: History of (male) condom use by self or partner among sexually active students of tertiary institutions in Kano (n=159)**

Condom use	Males	Females	Total
	No. (%)	No. (%)	No. (%)
Always	27 (27.6)	12 (23.5)	39(24.5)
Regular	21 (21.4)	8 (15.7)	29(18.2)
Sometimes	27 (27.6)	19 (37.3)	46(28.9)
Never	23 (23.5)	22 (36.1)	45(28.3)
<b>Total</b>	<b>98 (100.0)</b>	<b>61 (100.0)</b>	<b>159(100.0)</b>

$\chi^2 = 4.65 \quad df = 3 \quad P = 0.2$

**Table 4: Pattern of high-risk sexual behaviour among students of tertiary institutions in Kano (n=159)**

High risk sexual behaviour	Frequency(%)	
	Males	Females
-% of respondents who had sexual intercourse at least once	103 (57.0)	56 (46.3)
-% of sexually exposed with 3 or more life time partners	42 (40.8)	31 (55.4)
-% of respondents who are currently sexually active i.e. sex in the last 6 months	32 (31.1)	25 (44.6)
-% of currently sexually active with multiple partners	26 (81.3)	18 (72.0)
-% of currently sexually active who use condom	7 (21.9)	8 (32.0)
-% of sexually exposed who had anal intercourse	6 (5.8)	11 (19.6)
-% of sexually exposed with history of STI involving self	14 (13.6)	28 (56.0)
-% of sexually exposed with history of STI involving partner	19 (18.4)	11 (19.6)
-% of sexually exposed with IV drug use	6 (5.8)	3 (5.4)
-% of sexually exposed with alcohol consumption in situations sex could occur	10 (9.7)	8 (14.6)

male and 54% of female undergraduates in Midwestern University in the United States<sup>16</sup> but higher than the 11% reported among Hong Kong University students by Abdullahi *et. al*<sup>17</sup>.

More males had three or more sexual partners in this study compared to females. Gokengin *et. al*<sup>23</sup> reported similar findings in a study among students in Turkey thus buttressing the fact that males are more likely to have multiple sexual partners compared to females.

Anal sex has been experienced by only 12% of the respondents while 32% admitted to engaging in oral sex. This figure is similar to the findings of Sallah *et. al*<sup>17</sup> among University of Benin, Togo students where 11.1% of females and 8.4% of males respectively practiced anal penetration. This could be ascribed to the religious inclination of majority of the respondents as all religions prohibit anal sex even among married couples.

Thirty percent of the respondents admitted to ever having an STI, while 19% admitted to being involved with a sexual partner who had an STI. This figure is higher than the 20% estimated during a 5-year survey of youths in developing countries in the early 1990s<sup>2</sup>.

Six percent and 13% of the respondents admitted to intravenous drug use and to taking alcohol respectively in order to enhance their sexual activity. The low usage of these substances may not be unconnected with the introduction of *Shariah* (Islamic law) in Kano state leading to an officially banned sale of alcohol.

In the light of the findings, it is recommended that early family life or sexual education starting from home, through primary, secondary and tertiary education should be pursued. This is to equip our youths with correct information to enable them make the correct choices about responsible sexual life while safeguarding the future generation from the ravages of AIDS and other sexually transmitted diseases. Parents and NGOs, particularly faith-based organizations should not shy away from communicating to our youths concerning this sensitive but important issue.

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