

Determinants of Sexual Practices Among Secondary School Students in Nigeria: Focusing on Socio-Cultural and School-Related Factors

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ABSTRACT

BACKGROUND: Very little is known about the school-related and sociocultural determinants of the sexual practices amongst Nigerian secondary school students. This study aims to determine such factors amongst them.

METHODS: This was a descriptive questionnaire-based cross-sectional survey of 2,530 students from 13 Nigerian secondary schools.

RESULTS: Roughly a fifth (22.1%) of the respondents had engaged in sex and their mean (\pm SD) age of sexual debut was 13.8 (\pm 3.6) years; 82.3% and 53.6% of those who had ever had sex had a history of vaginal sex and oral sex, respectively. Also, 52.3% and 58.9% of those with a history of vaginal sex and oral sex had multiple sexual partners, respectively. No significant difference exists between respondents' lifetime sexual history and school type (private versus [vs.] public); student's class (SS 1 vs. SS2 vs. SS3); and mode of the studentship (day vs. boarding) (p -values $>$ 0.05). However, the following factors were found to predict a positive history of engagement in sexual practices amongst the respondents: age \geq 20 years (aOR:5.24; 95%CI:2.21-12.46); age 15-19 years (aOR:1.99; 95%CI:1.02-3.88); studying in northern Nigeria (aOR:1.96; 95%CI:1.02-3.88); being a Yoruba (aOR:2.28; 95%CI:1.24-4.22); being male (aOR:1.89; 95%CI:1.17-3.04); and being a Muslim (aOR:2.17; 95%CI:1.30-3.64).

CONCLUSION: Age, gender, school location, tribe, and religion were significantly associated with the positive sexual history of Nigerian secondary school students.

Keywords: Sexual Behavior, Adolescents, Schools, Nigeria

INTRODUCTION

Teenage pregnancy remains a major public health problem in Sub-Saharan African countries, including Nigeria [1]. Similarly, Sexually Transmitted Infections (STIs) are also prevalent among adolescents and youths [2], necessitating public health interventions. Some of these infections include gonorrhoeal infection, herpes infection, human immunodeficiency virus (HIV) infection, human papillomavirus (HPV) infection, and more [3-6]. The fundamental risk to these problems is adolescents' engagement in sexual activities, with early sexual debut and having multiple

partners increases the risk. Abstinence has been advocated to prevent teenage pregnancy and STIs. If teenagers eventually decide to engage in the act, they are strongly advised to use appropriate protection such as a condom. Through unprotected sex, notorious infections can be transmitted from person(s) to person(s) [3-6]. Traditionally, there are three forms of sex: vaginal sex, oral sex, and anal sex [7-9]. Anal sex is any form of sexual activity that involves the anal area, and it includes: penetrating the anus with a penis, finger(s) or sex toy(s) (such as vibrators), and stimulating the anus using the mouth or tongue [7]. Vaginal sex is the form of sex,

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whereby the male penis penetrates the female vagina [8]. Oral sex is the form of sex that involves the stimulation of a partner's external genitalia by the use of the mouth, lip, tongue, teeth, and/or throat [9]. These definitions of sex have been used in several studies, and the same has been employed as the defining element for this study.

Many secondary school students are sexually active in Nigeria, engaging in indiscriminate sexual practices [10-15]. The prevalence rates of vaginal sex and oral sex among secondary school students in one of Nigeria's major cities are as high as 61.9% and 65.5%, respectively [15]. Going by these statistics, it is obvious that the engagement of in-school teenagers in Nigeria to the practice of safe sex is an issue of public health concern.

Some surveys have explored the socio-demographic predictors of sexual history amongst secondary school students in Nigeria [16-18]. From these surveys, religiosity, psychological factors (such as emotional intelligence and self-esteem, attitude towards risky sexual behavior), biological factors (such as age, sex), and social factors (such as living with both parents, the steadiness of love relationships, use of alcohol, level of income of family) were found to be determinants of sexual history among them [16-18]. However, these surveys: were single place studies, limited to a single state (not nationally representative), and failed to deeply explore school-related characteristics such as school setting, nature of studentship, the geographical location of school [16-18]. School-related factors and sociocultural factors play influential roles in determining health-related behaviors and sexual histories among secondary school students in Nigeria [19]; however, virtually no Nigerian study has specifically explored the school-related factors and socio-cultural factors associated with sexual histories among such a population. Hence, a study investigating these afore-mentioned factors is of relevant research interest since a sound knowledge of the history of sexual activity among Nigerian secondary school students goes a long way in determining their lifetime of sexual activity and reproductive health.

Aim: This study aims to determine the school-related and socio-cultural determinants of sexual practices of secondary school students in Nigeria, using primary survey data.

METHODS

Study Type: This descriptive cross-sectional study was conducted amongst secondary school students in Nigeria. The study forms part of the Campaign for Head And Neck Cancer Education (CHANCE) Programme of Cephas Health Research Initiative Inc, Nigeria [20-24]. This study surveyed 13 secondary schools in Nigeria, spread across five geopolitical zones in Nigeria: south-west zone, south-south zone; north-east zone; north-central zone; and north-west zone.

Study Tool: The study tool was an anonymous paper questionnaire developed from both a literature review and expert review by a certified health educator [1-19,25]. The questionnaire obtained information about the socio-demographic profile (such

as age, tribe, class, family background, etc.), school-related profile (such as school type, school composition, and mode of studentship), and sexual practice histories (such as a history of sexual intercourse [vaginal and oral], age of sexual debut, use of condoms, and a number of sexual partners) of the participants.

Study Sample and Data Collection: Between November 2016 and January 2018, 3000 randomly selected students in SS 1 to SS 3 classes in both private and public schools from the northern and southern regions of the country (Nigeria) were approached to participate in the study. In total, 2,701 consented to participate, filled in and returned the questionnaires. All participating schools were selected based on the authors' convenience due to limited human and financial resources.

Data Analysis: A total of 2,530 filled questionnaires were adequately filled, out of the 2,701 that was returned. The data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 25 software. Descriptive analysis of the participants' age and the age of sexual debut was done. The proportions of the respondents that had engaged in sexual activity were determined. Pearson Chi-square test was conducted to assess the associated independent variables; subsequently, the multivariable logistic regression model analysis was used to determine the variables that were independently associated with their sexual practice. The level of significance was set at $p < 0.05$.

Ethical Considerations: Ethical approval of the study protocol was obtained from the University of Ibadan/University College Hospital Ethical Review Board (Ref: UI/EC/18/0077). Informed consent were obtained from participants and teachers, respectively, after a detailed explanation of the research aims and objectives. All participation was voluntary and confidential. No participant was put under harm during the study.

RESULTS

The response rate for the study was 84.3% (2,530/3,000). The mean (\pm SD) age of the respondents was 16.4 (\pm 2.0) years, 37.9% were Muslims, 51.7% were from monogamous family background, 51.8% were schooling in the northern part of Nigeria, 69.1% were attending mixed school, 73.5% were attending public schools, 34.9% were from the Yoruba ethnic group, 78.1% were day students, 32.3% were in SS 3 class (Table 1).

More than one-fifth (22.1%) of the respondents had a positive history of sex, and their mean (\pm SD) age of sexual debut was 13.8 (\pm 3.6) years; furthermore, 82.3% and 53.6% of this category of respondents had a positive history of penetrative vaginal sex and oral sex, respectively. Also, 52.3% and 58.9% of those who had a history of penetrative vaginal sex and oral sex had multiple sexual partners, respectively (Table 2).

The bivariate analysis shows that a higher proportion of certain respondents had a significantly higher prevalence of sexual activity than those in other compared categories (p -values < 0.05) (Table 3). These respondents included those aged ≥ 20 years, studying in northern Nigeria secondary schools, from the Hausa ethnic group,

Table 1: Socio-demographic variables of the respondents

Variable (n=2,530)	Frequency/ Value	Percentage (%)
Age in years		
Youth (≥20 years)	138	5.5
Late adolescence (15-19 years)	1999	79.0
Early adolescence (10-14years)	372	14.7
Not specified	21	0.8
Mean (±SD)	16.4 (±2.0)	
Region		
North	1311	51.8
South	1219	48.2
School composition		
Girls only	230	9.1
Boys only	551	21.8
Mixed	1749	69.1
School type		
Public	1860	73.5
Private	670	26.5
Tribe		
Yoruba	884	34.9
Hausa	599	23.7
Igbo	250	9.9
Others	797	31.5
Mode of studentship		
Day	1976	78.1
Boarding	554	21.9
Sex		
Male	1418	56.0
Female	1088	43.0
Not specified	24	0.9
Religion		
Muslim	959	37.9
Christian	1537	60.8
Not specified	34	1.3
Family background		
Polygamous/ Single parent / others	1069	42.2
Monogamous	1307	51.7
Not specified	154	6.1
Class		
SS3	817	32.3
SS2	831	32.8
SS1	791	31.3
Not specified	91	3.6
“n” – Total number of respondents		

Table 2: Sexual practice histories among the respondents

Variables	Frequency/Value	Percentage (%)
Ever had sexual intercourse (vaginal or oral)? (n=2,530)		
No	1856	73.4
Yes	558	22.1
No response	116	4.6
Age of sexual debut (in years) (n=558)		
Mean (±SD)	13.8 (±3.6)	
How many sexual partners have you ever had? (n=558)		
One	103	18.5
Multiple (≥2)	295	52.9
No response	160	28.6
How frequently did you use a condom? (n=459)		
Never	213	46.4
Sometimes	134	29.2
Always	80	17.4
No response	32	7.0
Ever had vaginal sexual intercourse? (n=558)		
Yes	459	82.3
No	99	17.7
How many vaginal sexual partners have you ever had? (n=459)		
One	78	17.0
Multiple (≥2)	240	52.3
No response	141	30.7
Ever had oral sex? (n=558)		
Yes	299	53.6
No	259	46.4
How many oral sexual partners have you ever had? (n=299)		
One	48	16.1
Multiple (≥2)	176	58.9
No response	75	25.0
“n” – Total number of eligible respondents		

males from non-monogamous family backgrounds, and Muslims. In contrast, those in girls-only schools, as against those in boy’s only and mixed schools, were less likely to have a positive history of sexual activities.

Multivariate analysis shows that the following factors were found to be statistically significant positive predictors of histo-

Table 3: Factors associated with a positive history of sexual practice among the respondents

Variables	n	Positive history (%)	p-value
Age in categories			
Youth (≥20 years)	138	63 (45.7)	<0.001*
Late adolescence (15-19 years)	1999	435 (21.8)	
Early adolescence (10-14years)	372	56 (15.1)	
Region			
North	1311	350 (26.7)	<0.001*
South	1219	208 (17.1)	
School composition			
Girls only	230	20 (8.7)	<0.001*
Boys only	551	169 (30.7)	
Mixed	1749	369 (21.1)	
School type			
Public	1860	421 (22.6)	0.187
Private	670	137 (20.4)	
Tribe			
Yoruba	884	194 (21.9)	<0.001*
Hausa	599	207 (34.6)	
Igbo	250	38 (15.2)	
Others	797	119 (14.9)	
Mode of studentship			
Day	1976	428 (21.7)	0.478
Boarding	554	130 (23.5)	
Sex			
Male	1418	405 (28.6)	<0.001*
Female	1088	145 (13.3)	
Religion			
Muslim	959	289 (30.1)	<0.001*
Christian	1537	257 (16.7)	
Family background			
Polygamous/ Single parent /others	1069	258 (24.1)	0.022*
Monogamous	1307	267 (20.4)	
Class			
SS3	817	191 (23.3)	0.277
SS2	831	166 (20.0)	
SS1	791	177 (22.4)	

n: Total number of eligible respondents per category; * Statistically significant

ry of sex (oral and/or vaginal) among the respondents: age ≥ 20 years (youth) (aOR:5.24; 95%CI:2.21-12.46); Age 15-19 years (late adolescence) (aOR:1.99; 95%CI:1.02-3.88); studying in a northern Nigeria secondary school (aOR:1.96; 95%CI:1.02-3.88); being from the Yoruba ethnic group (aOR:2.28; 95%CI:1.24-4.22); being a male

Table 4: Predictors of positive history of sexual practice among the respondents

Variables*	YES (Have had sexual intercourse)		
	aOR	95% CI	p-value
Age in categories			
Youth (≥20 years)	5.24	2.21 – 12.46	<0.001*
Late adolescence (15-19 years)	1.99	1.02 – 3.88	0.043 *
Early adolescence (10-14years)	Ref		
Region			
North	1.96	1.14 – 3.37	0.015*
South	Ref		
School composition			
Girls only	0.34	0.13-0.87	0.025*
Boys only	1.31	0.80-2.13	0.285
Mixed	Ref		
Tribe			
Yoruba	2.28	1.24 – 4.22	0.008*
Hausa	1.61	0.84 – 3.07	0.153
Igbo	1.36	0.60 – 3.08	0.469
Others	Ref		
Gender			
Male	1.89	1.17 – 3.04	0.009*
Female	Ref		
Religion			
Muslim	2.17	1.30 – 3.64	0.003*
Christian	Ref		
Family background			
Polygamous/ Single parent / others	0.88	0.60 – 1.30	0.522
Monogamous	Ref		

aO: Adjusted odds ratio; CI: Confidence interval; *: Statistically significant

(aOR:1.89; 95%CI:1.17-3.04); and being a Muslim (aOR:2.17; 95%CI:1.30-3.64) (Table 4). Those who were attending girls-only schools (aOR:0.34; 95%CI:0.13-0.87) were less likely than those attending mixed-schools to have engaged in sexual practices.

DISCUSSION

Unprotected sexual practices can lead to unintended pregnancies and contraction of STIs [3-6]. This study investigated the relationship between socio-cultural factors, school-related factors, and history of sexual practices among secondary school students in Nigeria. The findings obtained from our data analysis showed that one out of every five respondents had a positive history of sexual practice (vaginal and/or oral sex). However, this observed prevalence rate is lower than that reported amongst secondary school students in the USA (41.2%), Uganda (49.8%), and Saudi Arabia (38%) [26-28].

Furthermore, the prevalence of vaginal sex among our respondents is higher than the corresponding prevalence rate of oral

sex. This finding is similar to that reported in some similar studies conducted in Nigeria [15] and overseas [29]. Similarly, the mean (\pm SD) age of sexual debut (13.4 (\pm 3.6) years) recorded in our study was almost the same as that reported in some other Nigerian studies: the study of Gabriel-Job et al. reported 13.0(\pm 2.3) years [26]; and another study, by Alex-Hart et al., reported a similar mean age (\pm SD) of the sexual debut of 13.37 (\pm 3.7) years among secondary school students in a major Nigerian city [27].

Our comparisons of the respondents' socio-demographic characteristics with their positive histories of sex yielded exciting results, many of which were statistically significant. We found, based on our study data, that males, older adolescents (15-19 years) and youths (20 years and above) were more likely to engage in sexual activities, and this is in line with other studies [11,12]. As alluded to by Gabriel-Job et al. [17], some of the reasons why the surveyed males were more likely to have had a positive history of sex may be because Nigerian parents often monitor teenage females' activities more than males. Males have higher adventurous lifestyles and social habits such as alcohol use, cigarette smoking, etc. [17]. Our study also found that those students attending girls-only schools were less likely to have a positive sexual history than those who attended mixed-schools. This is understandable because adolescent females are less likely than their male counterparts to engage in sex [17,26], and only girls are admitted to girls-only schools.

Other findings show that studying in a school situated in the northern part of the country, belonging to the Yoruba ethnic group, and being a Muslim increased the respondents' likelihood of having a positive lifetime history of sex compared with other corresponding categories. The reasons behind these propensities amongst these groups of respondents could not be fully explained based on the survey data's information. Hence, in-depth studies utilizing either a qualitative or mixed-method approach need to be conducted to explore why some groups were more likely to have engaged in sexual activity than other groups. Similarly, it would be good to find out

the motivations for abstinence among those who did not have a positive history of sexual activities.

This study is not without its limitations. First, we did not exhaust the list of possible questions that could be asked on sexual practices due to the study's limited scope. Incorporating a qualitative approach into the study design would have helped provide depth information on the respondents engaged in sexual practices or otherwise. Second, this study employed a cross-sectional design; thus, causality cannot be established. However, we did not set out to establish causality in this current study, rather to present factors that are independently associated with having a positive history of sexual practices among secondary school students. Third, the study respondents' information was self-reported and prone to misreporting because the topic is quite sensitive [30]. However, to reduce this possibility of misreporting among the participants, we emphasized that the information they are providing was strictly anonymous, and their responses cannot be traced back to them. Fourth, the study is prone to recall bias since we asked them about activities that may have taken place in the past. However, we do not believe that this is a very serious problem because it is very unlikely that a participant who had had sex (vaginal and/or oral sex) in the past will have trouble remembering the act.

Notwithstanding the limitations stated above, unlike many other Nigerian studies [10-17,18,31], this study is believed to be a nationally representative one that provides a strategic guide for the future planning and implementation of school-based sexual health programs in Nigeria. In conclusion, this study shows that socio-cultural and school-related factors are strong determinants of sexual practices among secondary school students in Nigeria.

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