



PATTERNS, RISK FACTORS, PERPETRATORS AND CONSEQUENCES OF SEXUAL PRACTICES AMONG NIGERIAN TEENAGERS

Akaninyene Mark

Affiliation: ¹Department of Public Health Nigeria Police Medical Service Headquarters Uyo Akwa Ibom State, Nigeria

Corresponding Author

Email: akaninyeneakpan07@gmail.com

Citation: Akaninyene Mark (2025) Patterns, Risk factors, Perpetrators and Consequences of sexual practices among Nigerian Teenagers. *Frontline Professionals Journal*, 2(1), 54–77.

Abstract

Background: Sexual practices among teenagers are a significant public health concern globally, with Nigeria being no exception. The World Health Organization (WHO) defines adolescence as the period between 10 and 19 years of age, during which individuals undergo significant physical, emotional, and social changes. These changes often influence their attitudes and behaviours towards sex. In Nigeria, the South-South region has been identified as having one of the highest prevalence rates of HIV/AIDS and other sexually transmitted infections (STIs) among young people. The region has also been reported to have high rates of teenage pregnancy, sexual violence, and other negative sexual health outcomes. This study aims to assess the patterns, risk factors, perpetrators, and consequences of sexual practices among senior high school students in Akwa Ibom state South-South region of Nigeria. By examining these factors, this study seeks to contribute to the existing body of knowledge on adolescent sexual health in Akwa Ibom state and provide insights for policymakers, healthcare providers, and other stakeholders working to promote healthy sexual behaviors and outcomes among young people in the region.

Methods: This was an analytical cross-sectional comparative study involving 740 public senior secondary adolescent students (14-19 years) from 4 selected schools. An adapted, self-administered pre-tested, semi-structured questionnaire was used for data collection. Participants were selected using multi-stage sampling. Data analysis was carried out with Statistical Package for Social Sciences (IBM SPSS statistics) version 27

software. Logistic regression analysis was used to determine the factors associated with sexual practices among adolescents, and statistical significance at $p \text{ value} \leq 0.05$.

Results: The mean age of respondents from the urban schools was 17.0 ± 1.52 years compared to 16.0 ± 1.19 years from the rural schools ($p < 0.001$). There was a statistically significant association in both settings among respondents who were breast caressed or had unwelcomed kissing and sexual intercourse. In the rural schools, 60.0% compared to 37.0% of respondents in urban schools who were breast caressed reported to have experienced increased incidents of sexual intercourse compared to those who were not breast caressed ($p < 0.007$). Also, in the urban schools, 56.5% of respondents who had unwelcomed kissing compared to 54.9% in rural schools have experienced sexual abuse. Moreover, there was a statistically significant association between genital touching and sexual intercourse among respondents in urban schools ($\chi^2 = 3.86, p = 0.005$). In the urban schools 52.8% compared to 47.3% in the rural schools who were exposed to genital touching were reported to have had sexual intercourse. The proportion of respondents with unwanted pregnancy was higher in the rural public senior secondary schools, 52 (32.5%), compared to the urban, 49 (28.8%), ($\chi^2 = 0.53, p = 0.469$). The proportion of respondents who had abortion as a consequence of sexual abuse was also greater in the rural 41 (25.6%) compared to 35 (20.6%) from the urban ($\chi^2 = 1.18, p = 0.277$).

A similar proportion of respondents in both setting, 24.3% and 24.4% respectively had STI as a consequence of sexual abuse. Rural schools respondents had significantly higher consequences of sexual practice compared to urban schools respondents. A slightly higher proportion of respondents in the urban, 43 (25.4%) agreed to have knowledge of HIV and that sexual abuse consequence could result in HIV infection compared to 38 (23.7%) in the rural ($\chi^2 = 0.11, p = 0.745$). A higher proportion of respondents in urban, (28.1%) compared to (24.9%) from the rural mentioned school mate as the commonest reported perpetrators of sexual abuse. This was statistically significant ($\chi^2 = 11.65, p = 0.040$). Conversely, a slightly higher proportion of respondents in rural schools, (27.3%) compared to (26.5%) from the urban schools were mentioned Boyfriend/ Girlfriend. In the rural schools, respondents who had sex for monetary gain had 4.00 times likelihood of experiencing sexual practice compared to those who did not (OR=4.00; 95% CI: 2.549-6.275) and 2 times more likelihood in the urban schools compared to those who did not (OR=2.00; 95% CI: 1.695-3.962). In the urban schools, respondents with peer pressure influence were 2.66 times more likely to have experienced sexual practice compared to those without (OR=2.666; CI:1.729-4.113) and 2 times likelihood among rural schools compared to those who did not (OR=2.00; 95% CI: 1.729-4.113). In the rural schools, respondents for whom poverty was the reason for engaging in sexual intercourse were 1.909 times more likely to have experienced sexual practice compared to those who poverty was not (OR=1.909; 95% CI: 1.249-2.917) and 1.64 times likelihood in the urban schools compared to those who poverty was not (OR=1.640; 95% CI: 1.083-2.483).

Conclusion: Sexual practices among Nigerian teenagers are a pressing public health concern, with far-reaching consequences for their physical, emotional, and social well-being. The patterns of sexual practices among Nigerian teenagers are influenced by a complex interplay of factors, including sociocultural norms, peer pressure, sex for money, poverty and lack of comprehensive sexuality education. Early initiation of sexual activity is common among Nigerian teenagers, with many engaging in risky sexual behaviors such as unprotected sex and multiple partnerships. Risk factors for early sexual initiation and risky sexual behaviors include poverty, low educational attainment, and exposure to violence and abuse. Perpetrators of sexual violence against Nigerian teenagers include family members, friends, and authority figures, highlighting the need for a comprehensive approach to prevention and response. The consequences of sexual practices among Nigerian teenagers are severe and long-lasting, including unintended pregnancy, sexually transmitted infections (STIs), and mental health problems. It is recommended that comprehensive sexuality education should be integrated into school curricula and community-based programs to provide teenagers with accurate and age-appropriate information about sexual health and relationships. Policies and programs should address the root causes of risky sexual behaviors, including poverty, inequality, and gender-based violence. Access to youth-friendly sexual and reproductive health services, including contraception and STI testing and treatment, should be expanded and strengthened. Laws and policies should be enforced to prevent and respond to sexual violence against teenagers, and perpetrators should be held accountable.

Keywords: sexual practices, risk factors, consequences, adolescent, perpetrators

Introduction: Sexual practice is a topical issue of public health importance, a reality that remains a cause for concern to parents, teachers, and governments of nations all over the world. Sexual practices among teenagers are a significant public health concern globally, with Nigeria being no exception. The World Health Organization (WHO) defines adolescence as the period between 10 and 19 years of age, during which individuals undergo significant physical, emotional, and social changes (WHO, 2018). These changes often influence their attitudes and behaviors towards sex.

In Nigeria, the South-South region has been identified as having one of the highest prevalence rates of HIV/AIDS and other sexually transmitted infections (STIs) among young people (NACA, 2020). Furthermore, the region has also been reported to have high rates of teenage pregnancy, sexual violence, and other negative sexual health outcomes (NPC, 2019).

The social, economic and health issues of adolescent students in rural and urban areas need to be highlighted especially as most often they are a population commonly abused and rarely reported.

(Tobin EA, Okojie HO., 2010). Every day, countless children and adolescent students around the world are sexually molested, harassed, exploited and abused, to the extent that sexual abuse is increasingly being recognized as a major social and public health concern globally (Odeigah L, Sule AG. 2019). Sexual abuse among adolescent is sexual activity between an adolescent and a person who by age or development is in relationship of responsibility, trust or power, the activity being intended to gratify or satisfy the need of such a person. This act may include but is not limited to the inducement or coercion to engage in any unlawful sexual activity, the exploitative use in prostitution, pornographic performance and materials or other unlawful sexual practices. Factors such as societal decadence, moral decadence, poor parenting and upbringing, poor educational system, poor judiciary/ legal system have been shown to worsen the problem of sexual abuse among adolescents. Sexual abuse can cause many short and long term struggles for victims, offenders, families, communities and the larger society culminating into immediate psychological reactions like shock, shame, guilt, anger and long term complications such as depression, post-traumatic stress disorder, suicidal ideation, lack of sexual enjoyment and fear. (Johnson O, Basse B., 2019). Adolescent students constitute the greater proportion of people with sexual abuse problems, thus they are considered a high risk group (Lalor K., 2013). The WHO reported that 1 in every 5 women has been a victim of sexual assault and globally, 35% of women have experienced either physical and or sexual violence in childhood. The Center for Disease Control and the United States Department of Justice in 2013 conducted a study and reported prevalence of high school boys and girls being forced to have sex at some point of time in their lives to be 11% and 4% respectively. Adolescents experience different patterns of unwanted sexual experiences. The unwanted sexual experiences among adolescent were penetrative and non-penetrative. The non-penetrative or non-contact form varies from adolescent pornography to all forms of sexual touch while the penetrative or contact include digital and /or object/ penile penetration of the vagina and / or anus as well as oral-genital, genital-genital, vaginal, anal or oral penetration (Tran NK, Berkel SR., 2018). The penetrative sexual abuse typically results in straddle injuries which is the most common types of unintentional injury involving the genitalia and arise when soft tissues of the external genitalia are compressed between the object and the pubic bone resulting in haematoma formation of the external structures with visible swelling and some pains in the anterior portion of the external genitalia. Young people face numerous health and sexual challenges during their transition to adulthood. These challenges include, among others, limited access to Sexual and

Reproductive Health (SRH) information and services. Unmet SRH needs among secondary school adolescent students may contribute to sexually transmitted diseases, including HIV, and unintended pregnancies, abortions and its attendant complications (Omotade PG, Omolola FF, 2017). Secondary school adolescent students are the most at risk group for sexual abuse and violence. The data on age of sexual initiation and rates and sexual abuse/ violence make it clear that more adolescent- specific research needs to be conducted to construct and drive- home an evidence base for the planning and implementing adolescent- specific SRH programs in Nigeria. The vulnerability of this group is thought in part to be related to low socio-economic status and inexperience in matters of adolescent sexuality as reported in a study by Alokun. Most adolescents in senior secondary schools in both rural and urban areas are immature on matters concerning sexuality thus, further worsening their vulnerability to sexual abuse. It is worth noting that adolescence is a combination of physical, psychological and social changes that manifest differently in different cultural settings, hence, their SRH needs including understanding the determinants of specific patterns of sexual behavior and practices, perpetrators and age of onset of sexual activity, life-long impact of sexual behavior on adolescent's physical and psychological health, and the health and psycho-social needs that results from these issues (Ali A, 2017).

This study aims to assess the patterns, risk factors, perpetrators, and consequences of sexual practices among senior high school students in the South-South region of Nigeria. By examining these factors, this study seeks to contribute to the existing body of knowledge on adolescent sexual health in Nigeria, and provide insights for policymakers, healthcare providers, and other stakeholders working to promote healthy sexual behaviors and outcomes among young people in the region. The findings from this study will contribute greatly to the design, re-design and implementation and implantation of an appropriate Sexual and Reproductive Health (SRH) intervention program that will have a direct bearing and response to the unique needs of adolescent students in public secondary schools in Akwa Ibom State, Nigeria.

Methods and Materials

Study Area: The study was carried out from November 2021 to January 2023 among 740 participants in 4 selected public senior secondary schools in Akwa Ibom state, Nigeria, situated in the oil-rich Niger Delta region. The geographical area of the State is divided into upland and riverine with thirty-one Local Government Areas (LGAs) categorized into three senatorial districts

namely Uyo, Eket and Ikot Ekpene. These schools are located in the three senatorial districts of the state. Using population projection and estimations index of the State Bureau of Statistics, the state 2021 projected population was 6.4 million; a million increase from 5.4 million based on the National Population Commission census figures of 2006 and estimate of adolescents population aged 10-19 years was 928,914. The attractive tourist centers include Le Meridien and Golf Resort, 30,000 seats sport complex (stadium), Ibom Tropicana and Entertainment center, Ibeno beach and a widespread of viewing centers, Eateries/Bars/Hotels and other Cinema centers are available in the state where senior secondary school adolescent students may patronize. Some of these schools are mixed schools. Nigerian secondary education is organized into two categories: Junior and Senior secondary schools each lasting for 3 years. Adolescents make up about 25% of the general population and a minimum of one out of 3 people in Akwa Ibom lives in some form of urban accommodation with access to an urbanized lifestyle. Akwa Ibom State adheres strictly to the law regarding sexual abuse among students in the state. Sexual abusers/ perpetrators may face life imprisonment following the signing of the Violence against Person Prohibition Law (VAPPL) by the state governor in June 2020.

Study design: A cross-sectional analytical comparative study was employed to ascertain the patterns and risk factors of unwanted sexual experiences among adolescents in public senior secondary schools.

Sampling technique: A multi-stage sampling technique was employed

In the first stage, The LGAs were stratified into rural and urban (seven out of the thirty one local government areas in Akwa Ibom State are classified as urban, the other twenty four are rural). The ratio of urban and rural LGAs was 1: 3. One urban and 3 rural LGAs were selected using simple random sampling technique balloting.

Second stage was the selection of schools. A list of approved public senior secondary schools was obtained from AKS Secondary Education Board. From the Urban LGA (Uyo LGA), one school was selected and one school each was selected from the rural LGAs using the simple random sampling technique.

Third stage: Selection of respondents. A total of 370 students in the urban and 124 students in each of the three rural schools selected were included in the study. Students for this study were recruited

from SS1, SS2, SS3. Proportionate allocation was done to determine the number of students to select from each class in each urban and rural public senior secondary schools.

Study instruments:

The study instrument was adapted from the United Nations Children Fund (UNICEF) questionnaire measuring violence against children. The instrument was pretested and validated

Data collection:

The data was collected for a period of three months during school session. The different schools were asked to give convenient days and free periods for data collection based on the school's weekly schedule. The self-administered questionnaires were administered to the selected students in their respective classes in each school. To ensure confidentiality and an atmosphere devoid of external influence, the principals and teachers were not present while the students completed the questionnaires. Also, the students were spaced so that they could not interact with one another while filling the questionnaire. The research team was made up of the author and six research assistants who were resident doctors from the University of Uyo Teaching Hospital, Uyo with post graduate degrees.

Outcome variables:

The independent variables include socio-demographic characteristics (age, level of education, religion, tribe, parent's age, parent's occupation, number of children the parent had, use substances. The dependent/ outcome variables include patterns of sexual practices, proportion/ factor associated with adolescent sexual practice. They were measured as dichotomous variables and categorized as yes and no.

Statistical analyses:

Data was fed into Statistical Package for the Social Sciences (SPSS) version 27 software to generate frequency tables and percentages. Chi-square test was used to test for significant association between variables that are nominal. The mean age of adolescent sexual practices was assessed/ measured by determining the number of times the respondents in their life time was sexually practiced, the life time period was measured as a continuous variable and then recoded as a categorical variable having three categories: 10 – 14 years as early adolescence, 15 – 17 years as middle adolescence and 18 – 19 years as late adolescence. Adolescent age at first sexual intercourse was measured as a continuous variable and then recoded as a categorical variable having three categories of two-year intervals: ≤ 9 years, 10 – 12 years and 13 – 14 years. The

logistic regression analysis was used to determine predictors of adolescent sexual practices. The cut off for including variables into the logistic model was $p= 0.05$. The level of significance was set at $p\leq 0.05$ at 95% confidence interval.

Ethical considerations:

Ethical approval was obtained from the Institutional Health, Research and Ethical Committee of the University of Uyo Teaching Hospital UUTH Uyo, with reference number UUTH/AD/S/96/VOL.XX1/610 and permission to carry out the study was obtained from the Ministry of Education, State Secondary Education Board, Uyo Akwa Ibom State. The author sought for and obtained permission from the Principals of the selected schools.

A notification letter was sent to the Parent- Teacher Association (PTA) of the selected schools and those participants less than 18 years gave assent while their parent/ guardian provided written consent. Written consent was obtained from those aged 18 years and above. The self- administered questionnaire was completed by the students after adequate explanation of the purpose of the study and the contents of the questionnaire. Questions raised concerning the questionnaire were addressed. Privacy was ensured with spacing of the students while filling the questionnaire in the hall. Confidentiality was assured as the students were informed not to write their names on the questionnaire and all the personal identifying information such as phone numbers, address and name of respondents were not captured on the questionnaire nor electronically. Serial numbers and not names of participants were used to ensure confidentiality. No student would be victimized or punished on account of any information given concerning their sexual practices and no harm would be incurred by them. The participants were informed that they were free to decide not to participate and could choose to discontinue at any point during the process of the interview and that they would not suffer any consequences if they chose not to participate. Such people would still enjoy all the benefits of the study.

Results:

Table 1 Socio-demographics characteristics of the respondents

	Urban(%)	Rural(%)	Total		
Characteristics	n=370	n=370	n = 740	χ^2	p-value

Age group					
14-15	110 (29.7)	193 (52.2)	303(40.9)	40.63	<0.001*
16-17	149 (40.3)	114 (30.8)	263(35.6)		
18-19	111 (30.0)	63 (17.0)	174(23.5)		
Mean ±SD	16.56 ±1.52	15.96±1.19	16.26±1.36		
Gender					
Male	151 (40.8)	132 (35.7)	283(38.2)	2.07	0.151
Female	219 (59.2)	238 (64.3)	457(61.8)		
Class grade					
SS1	109 (29.5)	184 (49.7)	293(39.6)	71.28	0.001*
SS2	186 (50.3)	177 (47.8)	363(49.1)		
SS3	75(20.2)	9 (2.5)	84(11.3)		

*Statistically significant (p<0.05)

The mean age of respondents from the urban public senior secondary school was 17.56 (± 1.52) years while the mean age of the rural public senior secondary schools was 16.96 (± 1.19) years (p<0.001). A higher proportion of the respondents in rural schools were aged 14-15 years 193 (52.2%) compared to 110 (29.7%) in the urban schools. A higher proportion of the respondents in rural schools were females, 238 (64.3%) compared to 219(59.2%) in urban schools. A higher proportion of respondents in the rural schools were in SS1 class 184 (49.7%) compared to the urban schools 109 (29.5%)

Table 2: Patterns of sexual practices among the respondents

Variables	Urban N= 370	Rural N= 370	Total n = 740	χ^2	p- value
-----------	-----------------	-----------------	------------------	----------	-------------

Verbal Sexual harassment

Yes	127 (34.3)	133 (35.9)	260(35.1)	0.21	0.644
No	243 (65.7)	237 (64.1)	480(64.9)		
Breast Caressed					
Yes	88 (23.8)	64 (17.3)	152(20.5)	4.77	0.029*
No	282 (76.2)	306 (82.7)	588(79.5)		
Unwelcomed Kissing					
Yes	72 (19.5)	77 (20.8)	149(20.1)	0.21	0.647
No	298 (80.5)	293 (79.2)	591(79.9)		
Genital Touching					
Yes	67 (18.1)	60 (16.2)	127(17.2)	0.47	0.495
No	303 (81.9)	310 (83.8)	613(82.8)		
Forced to watch Pornography					
Yes	122 (33.0)	96 (25.9)	218(29.5)	4.39	0.036*
No	248 (67.0)	274 (74.1)	522(70.5)		

Table 2 shows the patterns of unwanted sexual experiences of the respondents. The proportion of respondents with verbal sexual harassment was slightly higher in the rural schools, 133(35.9%), compared to the urban schools, 127 (34.3%) ($p= 0.644$). A higher proportion of respondents in the urban school, (23.8%), compared to rural public senior secondary schools, (17.3%), had breast caressed. This was statistically significant ($\chi^2=4.59$, $p=0.029$). The proportion of respondents who had genital touching was slightly higher from the urban school 18.1% compared to rural schools, 16.2%. A higher proportion of respondents who were forced to watch pornography were seen in the urban school, 122(33.0%) compared to 96(25.9%) rural schools.

Table 3: Consequences of sexual practices among respondents

Consequences	Urban(%)	Rural(%)	Total	χ^2	p-value
	N=169	N=160	n = 329		
Unwanted Pregnancy					
Yes	49 (28.8)	52 (32.5)	101(30.7)	0.53	0.469
No	120 (71.2)	108 (67.5)	228(69.3)		
Abortion					
Yes	35 (20.7)	41 (25.6)	76(23.1)	1.18	0.277
No	134 (79.3)	119 (74.4)	253(76.9)		
STI					
Yes	41 (24.3)	39 (24.4)	80(24.3)	0.003	0.957
No	128 (75.7)	121 (75.6)	249(75.7)		
Knowledge of HIV					
Yes	43 (25.4)	38 (23.7)	81(24.6)	0.11	0.745
No	126 (74.6)	122 (76.3)	248(75.4)		

The proportion of respondents with unwanted pregnancy was higher in the rural public senior secondary schools, 52 (32.5%), compared to the urban public senior secondary school, 49 (28.8%), ($\chi^2=0.53$, $p= 0.469$). The proportion of respondents who had abortion as a consequence of sexual abuse was also greater in the rural public senior secondary schools 41 (25.6%) compared to 35

(20.6%) from the urban public senior secondary schools ($\chi^2=1.18, p= 0.277$). Rural schools respondents had significantly higher consequences of sexual abuse compared to urban schools respondents. A slightly higher proportion of respondents in the urban public senior secondary school, 43 (25.4%) agreed to have knowledge of HIV and that sexual abuse consequence could result in HIV infection compared to 38 (23.7%) in the rural public senior secondary schools ($\chi^2=0.11, p= 0.745$).

Table 4: Perpetrators of sexual practices among the respondents

Types of perpetrators	Urban(%)	Rural(%)	Total	χ^2	p-value
	N=370	N=370	n = 740		
School mate	104(28.1)	92(24.9)	196(26.5)		
School teacher	26 (7.0)	42 (11.4)	68(9.2)	11.65	*0.040
Neighbour	50 (13.5)	41 (11.1)	91(12.3)		
Boyfriend/Girlfriend	98 (26.5)	101(27.3)	199(26.9)		
Non-teaching staff	52 (14.1)	36 (9.7)	88(11.9)		
**Others	40 (10.8)	58 (15.6)	98(13.2)		

Multiple Responses applied, **Others (brother, sister, father, stepfather, uncle, househelp)

A greater proportion of respondents in both urban and rural schools agreed that most perpetrators of sexual abuse are persons known to the respondents. A higher proportion of respondents in urban public senior secondary schools, (28.1%) compared to (24.9%) from the rural public senior secondary schools mentioned school mate as the commonest reported perpetrators of sexual abuse. This was statistically significant ($\chi^2=11.65, p= 0.040$). Conversely, a slightly higher proportion of

respondents in rural schools, (27.3%) compared to (26.5%) from the urban schools were mentioned Boyfriend/ Girlfriend.

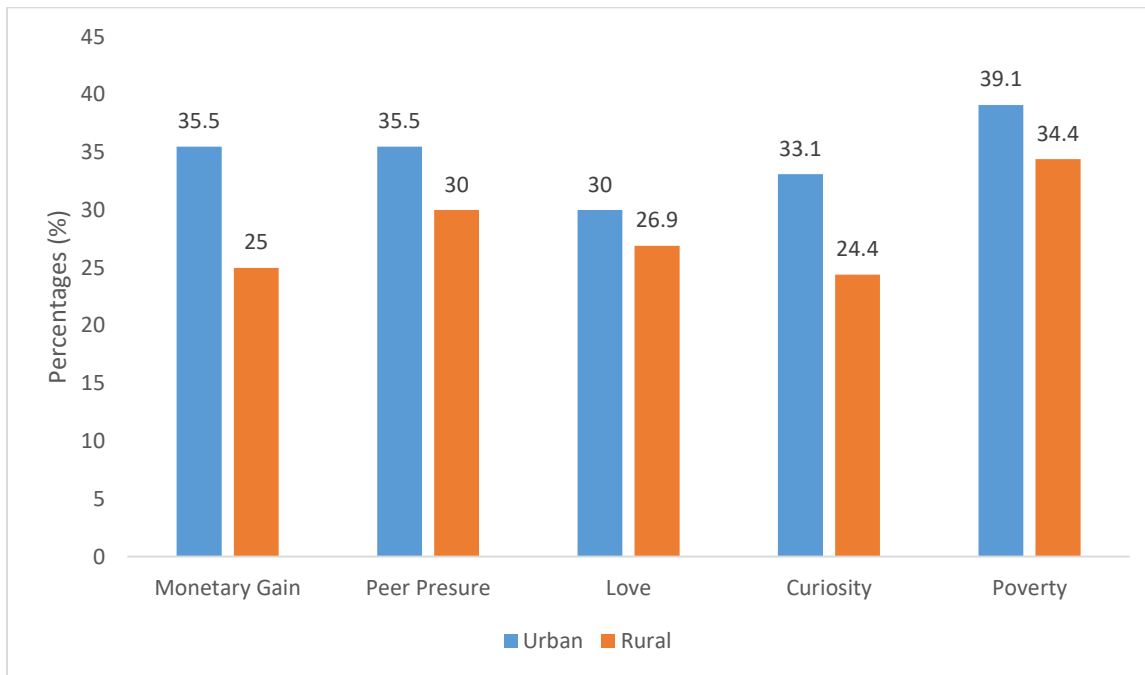


Fig 1 reasons for indulging in sexual practices

A higher proportion of respondents in urban public senior secondary school, 60(35.5%) compared to 40(25.0%) from the rural public senior secondary schools agreed that monetary gain was one of the reasons for having sexual intercourse ($\chi^2=4.29$, $p= 0.038$). Also the proportion of respondents who peer pressure was a reason for having sexual intercourse was slightly higher in the urban public senior secondary schools, 60 (35.5%), compared to the rural public senior secondary school, 48 (30.0%). Furthermore, a higher proportion of respondents in urban, 33.1% compared to 24.4% from the rural public senior secondary schools agreed that curiosity was a reason for having sexual intercourse. The proportion of respondents for whom poverty was the reason for having sexual intercourse was slightly higher in the urban public senior secondary school, 66(39.1%) compared to 55(34.4%) from the rural public senior secondary schools ($p=1.640$)

Table 5: Factors of unwanted sexual practices among respondents in urban public senior secondary schools

Variables	Category	p-value	Odd Ratio	95% CI		In urban
				Lower	upper	
Close friend who also had sex	Yes	0.008	1.779	1.162	2.726	
	No					
Social habits	Smoking	0.016	1.651	1.093	2.493	
	No smoking					
	Alcohol	0.0001	2.653	1.741	4.044	
	No alcohol intake					
Genital touching	Yes	0.049	1.540	1.000	2.378	
	No					
Unwelcomed kissing	Yes	0.001	2.014	1.314	3.088	
	No					
Curiosity	Yes	<0.0001	2.591	1.695	3.962	
	No					
Monetary gain	Yes	0.0003	2.152	1.414	3.275	
	No					
Peer pressure	Yes	0.0003	2.152	1.414	3.275	
	No					
Poverty	Yes	0.019	1.640	1.083	2.483	
	No					
Breast caressing	Yes	0.006	1.830	1.186	2.827	
	No					

Constant	0.007	13.927
-----------------	-------	--------

Schools, respondents who were aged 18-19 years were 2.5 times more likely to have experienced some forms of sexual abuse compared to those aged 14-15 years (OR=2.514; 95% CI:0.784-8.058). Respondents who had sexual knowledge had 40% reduced likelihood of experiencing sexual abuse compared to those without sexual knowledge (p=0.017) (OR=0.606; 95% CI: 0.401-0.915). Respondents who had friends that also had sex were 1.7 more likely to have experienced some forms of sexual abuse (p=0.008) compared to those who did not (OR=1.779; 95% CI: 1.162-2.726). Alcohol intake significantly (p=0.0001) increased the likelihood of being sexually abused by 2.653 (95% CI: 1.741-4.044). Also, respondents who smoke cigarette were 1.65 times more likely to have been sexually abused (p=0.016) compared to non- smokers (OR=1.651; 95% CI: 1.093-2.493). Curiosity among respondents was associated with higher likelihood of experiencing some forms of sexual abuse by 2.591 times compared to respondents that were not (95% CI: 1.695-3.962) (p<0.0001). Respondents who had sex for monetary gain and peer pressure influence had 2.152 likelihood of experiencing some form of sexual abuse compared to those who were not (OR=2.152; 95% CI: 1.414-3.275) (p=0.0003) respectively

Table 6: Factors of unwanted sexual practices among respondents in rural public senior secondary schools

Variables	Category	p-value	Odd Ratio	95%CI Lower-upper
Unwelcomed kissing	Yes	0.005	1.919	1.211-3.044
	No	1.000		
Curiosity	Yes	0.0001	4.218	2.682-6.635
	No			
Monetary gain	Yes	0.001	4.000	2.549-6.275
	No			

Peer pressure	Yes	0.0001	2.666	1.729-4.113
	No			
Poverty	Yes	0.003	1.909	1.249-2.917
	No			
Breast caressing	Yes	<0.001	2.550	1.594-4.081
	No			
Constant		0.007	13.927	

Table 6 depicts factors of unwanted sexual practices among rural school respondents. Respondent for whom poverty was the reason for engaging in sexual intercourse were 1.640 times more likely to have experienced some form of sexual abuse ($p= 0.019$) compared to those for whom poverty was not ($OR=1.640$; 95% CI: 1.083-2.483). There was a 2.0 likelihood of experiencing sexual abuse among respondents with unwelcomed kissing compared to those who were not ($OR=1.919$; 95% CI: 1.211-3.044) ($p=0.005$). Respondents who had sex for monetary gain had 4.00 times likelihood of experiencing some form of sexual abuse compared to those who did not ($OR=4.00$; 95% CI: 2.549-6.275) ($p=0.001$). Respondents with peer pressure influence were 2.66 times more likely to have experienced some form of sexual abuse compared to those who were not ($OR=2.666$; CI: 1.729-4.113) ($p=0.0001$).

Discussion

This study determined and compared the patterns, perpetrators risk factors and consequences of sexual practices amongst adolescents in selected schools of the urban and rural areas of Akwa Ibom State. The mean age of respondents from the urban public senior secondary schools was 17.0 ± 1.52 years while the mean age of the rural public senior secondary schools was 16.0 ± 1.19 years. Respondents from urban schools were significantly older than those of rural schools. This finding is similar to what was obtained in a study done among school adolescents in Uganda where the mean age of the respondents was reported to be 18 years. This study finding is also similar to what was reported in a study conducted among school adolescents in South Africa where the mean age of the respondents was 17 years (Shashirkumar R, Srivastava K., 2012).

Different patterns of sexual practices were reported in the present study. Verbal sexual harassment was little above one-third in urban and rural schools. The urban-rural similarity was not surprising due to the increasing interest shown by peers, lack of skills when it comes to expressing sexual interest in both settings. Similarity in pubertal development among adolescents in both settings could also be a factor for the verbal sexual harassment in both settings. The prevalence of verbal sexual harassment noted in this study was similar to the Ijesha study conducted in urban schools where little above one-third of respondents had experienced verbal sexual harassment (Ali A 2017).

Breast caressing was higher among respondents in urban schools compared to those in rural schools. Little above one-fourth of urban schools respondents had experienced breast caressing compared to less than one-fifth of respondents in the rural schools. The finding recorded in this study contradicts with the North Eastern Nigerian study, where about 9% of the respondents reported breast caressing (Omotade PG, Omolola FF, 2017). The socio-cultural and religious factors in the North East Nigeria may have been responsible for this finding. Early marriages, religion, dressing style and cultural considerations where female adolescents live separate from the male counterparts may account for low prevalence of breast caressing.

Genital touching was higher among urban schools respondents 18.1% compared to 16.2% in rural schools. The difference in proportions was not statistically significant. This study finding was similar with the result of finding in a study at Enugu metropolis where a little less than one-fifth of respondents had experienced genital touching (Tran NK, Berkel SR., 2018). About one-third of urban school respondents who watched pornographic pictures/videos had unwanted sexual experiences compared with one-fourth of those in the rural schools. This finding was also similar with the finding in a study at South East Nigeria where about one-third of respondents in urban schools had watched pornographic pictures (Udoh SB, Idung AU, 2015). This could be due to the availability of modern infrastructure, desire to live affluent lifestyle, influx of cinema/ viewing centers, eateries and the westernization. More than one-fourth of respondents in rural schools who masturbate had unwanted sexual experiences compared with less than one-fourth in urban schools. Cultural orientation and poor sexual orientation coupled with ignorance on sexual matters among rural schools respondents may be contributory factors. This finding was similar to urban study in Enugu (Tobin EA, Okojie HO., 2010) that had one-fourth of respondent with masturbating activity. The possible reasons could be opined to less attention from their parents, poor family upbringing

and sex education. Moreover, high illiteracy, poor educational and poor legal systems could be contributing factors.

The consequences of adolescent sexual practices in this study were unwanted pregnancy, abortion, STI, knowledge of HIV as experienced by the victims. The reproductive health problems during adolescence may be cumulative and their effect could be seen in adulthood (Lalor K. 2013). The symptoms exhibited could be of short term or long term duration and the attendant complications that develop later in life depends on the severity of the injuries incurred, the types of assault exhibited, early detection, effectiveness of the treatment and the body coping mechanism of the victim.

Unwanted pregnancy was higher in rural schools with about one-third of respondents affected compared to more than one-fourth in urban schools. Among those who had sexual intercourse, the proportion of respondent who have had abortion in the past was about one-fourth in rural schools compared to one-fifth of respondents in urban schools. This finding was similar with the finding in a study at South East Nigeria where one-fourth of respondents in rural schools have had abortion (Odeigah L, Sule AG., 2019). This could be due to poor parenting, ignorance and poor self-esteem. The unwanted pregnancy and abortion among respondents in both schools could have been attributed to poor communication of respondent with parents, poor reporting system, poor legal system, poor religiosity, indecision to say no to touching private part, no to watching pornographic videos/ pictures, and setting boundary rules and running away. A similar proportion of less than one-fourth of respondents in both schools have had STI as a consequence of sexual abuse. The similarity between the two groups was not surprising due to their adventurous nature, lack of sufficient vaginal fluid, and immaturity of the cellular vaginal mucous membrane; chances of infections may be higher depending on the age and size of the adolescent as STI increases with age. It could be more serious especially in early adolescence and those who engage in sexual activities with little or no knowledge about sexual coping mechanism. Weak laws and policies regarding adolescent sexual abuse are contributing factors. Factors such as weak community sanctions, lack of institutional support from police and judicial systems, and dysfunctional and unhealthy relationships between adolescent and parents characterized by inequality and conflict at home are associated with the consequences of adolescent sexual abuse.

Knowledge of HIV as experienced by the victims was slightly higher among respondents in urban schools, about one-fourth compared to little above one-fifth of respondents in rural schools. This difference was, however, not statistically significant. This could have resulted from increased awareness of HIV on social media, media houses, and the functionality of urban health facilities where they visit. It is worth pointing out that adolescent students are particularly susceptible to Human Immune virus transmission, hepatitis B and C, syphilis, chancroid and other sexually transmitted diseases through forced and unforced sex because their mucous membrane have not yet acquired cellular density significant to provide an effective barrier that develop later in teenage years. Concerning the perpetrators of sexual practices, the findings from this study showed that the main perpetrators were schoolmate, and boyfriend/ girlfriend in urban schools, similar to rural schools. Their activities include being forced to watch pornographic pictures/ videos, forced to masturbate, forced to look at genital and naked genitalia for picture taking.

Among respondents who were forced to watch pornographic pictures/ videos, one-third of respondents were in urban schools compared to about one-fourth of respondents in rural schools. This finding was similar to the result of an urban study at South East Nigeria where 40% of respondents had watched pornographic pictures (Wondie Y. 2011). This finding also agreed with a study conducted in Enugu Nigeria. The need to showcase themselves, the need to own an android phone to be connected with friends worldwide, and the fact that the world is a global village could have been the contributing factors to why adolescents were forced to watch pornographic pictures/ videos. This is becoming rampant as most in-school adolescent students carry Android phones and are always online on social media. Parents should be watchful on the type of peers their children are going out with. This finding could have been due to factors such as lack of institutional support, dysfunctional and unhealthy relationships between adolescent and parents and conflict at home. Respondents forced to expose their genital for picture taking perpetrated by boyfriend/ girlfriend, teacher were more than one-third in urban schools compared to less than one-third in rural schools. This finding was similar to the Ethiopian study, where most adolescents were abused by friends and teachers (WHO 2017). On the whole, majority of adolescent sexual abuse in both urban and rural schools was perpetrated by people the victim and, at times their families had known and trusted.

In determining the factors of unwanted sexual experiences among respondents in urban and rural schools, those aged 18-19 years in the urban schools were 2.5 times more likely to have

experienced some forms of sexual abuse compared to those aged 14-15 years. Increasing age was associated with an increased likelihood of reporting unwanted sexual experiences. The higher occurrence of unwanted sexual experiences among the older age group in this study could be linked to increased peer pressure, desire to experiment and more interest in having money compared to the younger age group.

This finding contradicts a logistic regression finding in a study in Enugu, South-Eastern Nigeria where the highest incidence of in-school adolescent sexual abuse occurred between ages 13-14 years followed by 15-16 years. In the same light, the finding also contradicts a study in Maiduguri stated that adolescent girls in secondary school below the age of 16 years were significantly more likely to be sexually abused than those above 16 years. This lower age of onset of sexual abuse exposure in the two studies may be attributed to the poor supervision of parents, poor parenting, single parenthood and broken homes and/or polygamous family.

Concerning socio-demographic characteristics and sexual abuse experiences in rural schools, respondents who were aged 16-17 years were 2 times more likely to have been sexually abused compared to those aged 13-14 years. This finding is in line with a study in Kenya that found that over half of the secondary school adolescent who were sexually victimized were between 15-17 years old (Alokan F,2012). In determining the predictors of factors of unwanted sexual experience among respondents in urban and rural schools, about 42.9% of respondents in urban schools had smoked cigarette compared to 33.8% of respondents in rural schools. Also, 34.9% of respondents in urban schools had indulged in alcohol intake compared to 33.8% in the rural schools. This difference in proportion was statistically significant. This finding was similar to finding in rural schools in Southern Nigeria, where about 34% of respondents were implicated in alcohol, smoking and sexual abuse. A possible reason could be that adolescents in this study area attend lots of social gatherings such as birthday parties, funeral ceremonies and marriage ceremonies where, in such occasions alcohol drinks are usually available in reasonable quantity such that adolescent have free access to them. The finding recorded in this study also, contradicts with the South Eastern Nigerian study, where 66.6% of the respondents had indulged in smoking. Alcohol intake and smoking of cigarette were the key factors that could influence their behavior toward indulging in unwanted sexual experiences A study has shown that adolescents are naturally less in control of their emotions and alcohol use may worsen the situation by reducing their ability to make rational

decisions. Hence alcohol and smoking of cigarette increase adolescent's risk-taking behaviours especially with regard to their sexuality and sexual abuse. Adolescents are typically experimenters. They experiment with lots of human behaviors including smoking and sex. Availability of alcohol, retailing of sticks of cigarette and use of alcohol as beverages in social occasions/ gatherings are common factors that enhance sexual abuse. Consuming alcohol or drugs by adolescent makes it difficult for them to protect themselves by interpreting and effectively acting on warning signs of sexual abuse displayed in some secondary schools. This increases their vulnerability to sexual violence. It may also place adolescent girls in settings where chances of encountering a potential offender are greater. Alcohol and smoking are capable of changing individual's perception influencing their behavior including having unwanted sexual experiences. Regrettably alcohol and smoking have lifelong consequences in adolescents; some of which arise from such anti-social behaviours often associated with alcohol and smoking as sexual abuse and rape. There is, therefore serious need to embark on intervention strategies to prevent alcohol- smoking and sexual abuse syndrome among adolescents.

Having indulged in alcohol intake significantly increases the likelihood of being sexually abused by 2.653. Also, respondents who smoke cigarette were about twice more likely to have been sexually abused compared to non- smokers. This is even so as cigarette smoking and alcohol intake are risk factors for having unwanted sexual experiences.

Curiosity among urban schools respondents was associated with higher likelihood of experiencing some forms of sexual abuse by about three times compared to respondents that were not. This could imply that adolescent experiment a lot and are curious of doing anything, including desiring to know what it feels like to have sex. Respondents who had sex for money and peer pressure influence had a 2 times more likelihood of experiencing some form of sexual abuse compared to those who were not, respectively. This finding differs from a study conducted in villages in Ghana, where 70% of mothers said they had encouraged young girls and secondary school leavers into premarital sexual relationships and sex for money. The finding also differs from the fact that many older women felt that receiving gifts in exchange for sex was not regarded as prostitution but evidence of a man's love. Respondents who poverty was the reason for engaging in sexual intercourse were about twice more likely to have experienced some form of sexual abuse compared to those who poverty was not. Poverty may have made them more vulnerable, thus exposing them

to different sexual advances with promises of financial compensations. Respondents who engaged in breast caressing had about twice the likelihood of being sexually abused compared to those who did not. Breast caressing may lead to sexual arousal which may make the parties concerned to proceed to unplanned sexual intercourse.

In the rural schools, there was a 2 times likelihood of experiencing sexual abuse among respondents with unwelcomed kissing compared to those who were not. This could have been attributed to weak judicial system to sanction offenders. Respondents who had sex for monetary gain had 4 times more likelihood of experiencing sexual abuse compared to those who did not. This could have been linked to poverty and adolescent trading on the street to pay school fees. The poor socio-economic status of the family could have been a contributing factor. Respondents with peer pressure influence were about thrice more likely to have experienced some form of sexual abuse than those without. Peer pressure influence is a strong force that drives unwanted sexual experiences among the adolescent. Respondent who poverty was the reason for engaging in sexual intercourse were twice more likely to have experienced some form of sexual abuse compared to those who poverty was not. This could have been due to poor socio-economic status, causing the adolescent to be enticed into illicit activities with the hope of financial compensation Respondents who engaged in act of breast caressing were 3 times more likely of being sexually abused compared to those who were not. Social factor played a significant role in this regard.

Acknowledgements: The authors acknowledge the principals of the selected schools, respondents and the research assistants who participated in this study and all the selected participants. The authors also acknowledge the Akwa Ibom State Secondary Education Board Ministry of Education for granting permission for this study to be conducted.

Declarations: The author declare no competing interest

References

Ali A (2017). Risky sexual behavior and factors associated with it among public secondary school students in Zimbabwe: a cross-sectional comparative study. *Journal of Reprod Med*;1(1):1-6. Available from: doi: 10.58244015533.

Shashirkumar R, Srivastava K. (2012). A cross sectional study of factors associated with adolescent sexual activity. *Indian J Psychiatry*; 54(2):138-142.

Omotade PG, Omolola FF (2017).. Risky sexual practices of senior secondary school students in an urban community of Oyo state, Nigeria. *International J Community Hlth Educ* 2017;4(1):173-180.Available from: doi:10.1177/0272684x17736154

Tran NK, Berkel SR. (2018). Child and family factors with child maltreatment in Vietnam. *Journal Interpersonal violence*.2018.Available from: <https://doi.org/10.1177/0886260518767914>.

Udoh SB, Idung AU (2015).. Sexual practices, knowledge and prevention of sexually transmitted diseases among upper grade secondary school adolescent students in Uyo. *IOSR J of Dental and Medical scs.* 2015; 14(4):9-12.Available form:<https://doi.org/10.001145/ugsa-03>.

Tobin EA, Okojie HO. (2010). Knowledge, attitude and practice of adolescent secondary school students in Uvwie Delta state, Nigeria. *J of postgraduate medicine.* 12 (1):45-49

Lalor K. (2013). Child sexual abuse in sub-Saharan Africa, *Child Abuse Negl*, 2014;6(4):439-460.Available at: <https://doi.org/10.1016/j.chiabu.2013.07.005>

Johnson O, Bassey B. (2019). Sexual practices among senior secondary students in private secondary schools in Uyo, Southern Nigeria. *Afr J Reprod Health;* 23(4):46-53.Available from:<https://doi.org/10.29063/ajrh2019/v23i4.6>.accessed 23rd April, 2021

Odeigah L, Sule AG. (2019). High risk sexual behavior among adolescent secondary school students in Nigeria. *Afri Health Sc;* 19(1):1466-1477.Available from:<https://dx.doi.org/10.4314/ahs.v19i1.20>. accessed 8th February, 2022

World Health Organization (WHO). (2020). Maternal, newborn, child and adolescent health. Geneva, Switzerland. Available from: www.who.int/maternal-child/adolescent/topics/adolescence/devt/en. Accessed 19th of October, 2021

Wondie Y. (2011). The psychosocial consequences of child abuse in Ethiopia: a case control comparative analysis “*J of interpersonal violence*; 2(1):243-247

WHO (2017). The long term effect of childhood sexual abuse: Counseling Implications Available from: https://www.who.int/counselling_outfitters.com/vistas/vistas11/article-19

Alokan F. Child sexual abuse. A potential damage to children. *J EducSoc Res.* 2012;2(1):357-363.
Okonkwo O, Naish ME. (2013). Criminal laws of sexual abuse in Nigeria. Ibadan spectrum publisher

Akwa Ibom State Ministry of Justice- violence against person prohibition law, 2020(Internet). Available from: <https://www.aksj/vappl/org>.

UNICEF. (2011). Statistical table, state of the world children 2011. Available from: www.unicef.org.

Seme A. (2014). Premarital sexual practices and its predictors among in-school adolescents of Shendi town, western Ethiopia. *Reprod Health J* ;11(1):49-52. Available from:doi;10.1123-4644-054.

Swahn H, Kasirye R. (2015). Girls and young women living in the slum: prevalence and correlates physical and sexual violence victimization, Ghana. *SAGE Open*.2015;15(2):21.Available from:doi:10.58244015580853.