Journal of Medical Technology and Innovation

Research Article

PREVALENCE AND DETERMINANTS OF HETEROSEXUAL BEHAVIORS AMONG SENIOR SECONDARY SCHOOL STUDENTS IN RIVERS STATE, NIGERIA

Augusta Oluchukwu Ojor

Department of Human Kinetics, Health and Safety Studies, Ignatius Ajuru University of Education, Port Harcourt, Nigeria

DOI: 10.5281/zenodo.14809364

Abstract

This study aimed to investigate the prevalence and determinants of adolescent heterosexual behaviors among senior secondary school students in Rivers State, Nigeria. Employing a descriptive cross-sectional research design, the study targeted a sample size of 1,200 students drawn from a total population of 185,225. The reliability of the research instruments was confirmed using the split-half method, yielding a coefficient of 0.77, while face and content validity were ensured. Descriptive statistics, including frequency, percentages, mean, and standard deviation, were used to address the research questions, and the chi-square test was applied to examine the relationships between variables. The findings revealed that 57.0% of the surveyed adolescents exhibited various heterosexual behaviors. Among these, 63.3% reported kissing the opposite sex, 62.1% engaged in sexual intercourse, 76.0% practiced oral sex, 67.7% engaged in anal sex, and 51.9% reported masturbation. Furthermore, a significant relationship was found between age and the prevalence of these behaviors (X2 = 14.200, df = 7, p < .05). Based on these results, the study recommends that public health officials and policymakers develop frameworks to regulate online content and information accessed by children and adolescents. Additionally, parents should take an active role in monitoring their children's health and social well-being to prevent risky sexual behaviors and their potential reproductive health consequences.

Keywords: Adolescents, Heterosexual Behaviors, Prevalence, Reproductive Health, Rivers State

Introduction

Adolescence is a crucial stage in human development, characterized by significant physical, emotional, and social changes. During this period, individuals experience a surge in hormones that trigger the development of secondary sexual characteristics and an increased interest in sexual activities. As adolescents navigate through puberty, their sexual curiosity and desires often peak, leading them to explore their sexuality in various ways. This exploration of sexual identity and behavior is influenced by a multitude of factors, including biological, psychological, social,

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

and environmental influences. However, while this heightened sexual interest is a natural aspect of development, it is accompanied by risks, particularly when adolescents engage in heterosexual behavior at an early age.

The term "adolescent heterosexual behavior" refers to sexual activity between individuals of the opposite sex before the age of 18. While sexual curiosity and exploration are a normal part of adolescence, early sexual activity can have significant consequences on an individual's emotional, physical, and social well-being. Adolescents may engage in sexual activities for a variety of reasons, such as peer pressure, curiosity, and the desire for intimacy, but many also do so due to the influence of societal norms or lack of proper sexual education. Unfortunately, some adolescents may not fully comprehend the potential consequences of these behaviors, which can include unintended pregnancies, sexually transmitted infections (STIs), and the social stigma associated with early sexual activity.

One of the key concerns regarding adolescent heterosexual behavior is its association with an increased risk of STIs and unintended pregnancies. The World Health Organization (WHO) has consistently noted that adolescents and young adults, especially those who are sexually active, are at a higher risk for contracting STIs compared to other age groups. The high rate of STIs among adolescents is often attributed to several factors, including inconsistent or incorrect use of contraceptives, lack of sexual education, and the limited access to reproductive health services. Furthermore, adolescents are less likely to seek medical attention or undergo regular screenings for STIs, which increases the risk of undiagnosed and untreated infections. Studies have shown that early sexual activity is also linked to an increased likelihood of engaging in multiple sexual partnerships, further compounding the risk of exposure to infections and the potential for unintended pregnancies.

Research by Sawyer et al. (2012) highlights the negative consequences associated with early sexual activity, including the likelihood of engaging in deviant behaviors such as drug use, stealing, fighting, and skipping school. Adolescents who initiate sexual contact at a younger age are often more susceptible to such risk-taking behaviors, which can have long-lasting effects on their physical and mental health, as well as their academic and social development. Additionally, the onset of sexual activity during adolescence can affect school performance and involvement in extracurricular activities. Studies have indicated that sexually active adolescents tend to have lower academic achievement and are less likely to participate in school-related events, which can further contribute to their disengagement from education and the broader social structure (Lanari et al., 2020).

The social and cultural context in which adolescents grow up also plays a significant role in shaping their sexual behaviors. In many societies, including Nigeria, adolescent sexuality is a taboo subject, and there is often a lack of open dialogue around sexual and reproductive health. As a result, adolescents may rely on peers or the media for information, which can be inaccurate or misleading. Moreover, the diverse socio-economic and cultural backgrounds of adolescents contribute to varying attitudes and behaviors towards sex. In Nigeria, for example, adolescent sexual behavior is influenced by factors such as gender, age, family structure, socioeconomic status, and geographical location. Rural and urban adolescents may experience different pressures and access to resources, which can further complicate the issue of sexual health.

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

In the context of Nigeria, adolescents between the ages of 10 and 24 make up about 13% of the population, a group that experiences rapid changes in their sexual desires and behaviors (Kar et al., 2015). This demographic is particularly vulnerable to engaging in heterosexual behaviors that could lead to negative outcomes such as adolescent pregnancies, sexually transmitted infections (STIs), and sexual abuse. Studies have also shown that adolescent girls are disproportionately affected by these outcomes, with girls aged 15-19 being twice as likely as their male counterparts to contract HIV (UNAIDS). The prevalence of such risky heterosexual behaviors among adolescents in Nigeria has led to growing concerns among policymakers, educators, and health professionals about the need for more targeted interventions.

Rivers State, located in the southern part of Nigeria, has witnessed several cases of adolescent pregnancies, STIs, sexual abuse, and violence, all of which are often linked to risky heterosexual behaviors. The media frequently reports these issues, which further highlight the extent of the problem and the need for effective strategies to address adolescent sexual health. Despite the awareness of these challenges, there remains a lack of comprehensive research into the specific prevalence and determinants of adolescent heterosexual behaviors in different regions of Nigeria, particularly in Rivers State. This gap in knowledge has made it difficult to design effective policies and interventions tailored to the unique needs of adolescents in this area.

The existing literature on adolescent sexual behavior often points to several risk factors that influence sexual activity, such as peer pressure, lack of parental supervision, early exposure to sexual content, and limited access to sexual health education. These factors not only increase the likelihood of engaging in sexual activity at a young age but also contribute to the continuation of unhealthy sexual practices throughout adolescence. Given the complexity of these issues, it is essential to conduct studies that explore the prevalence of adolescent heterosexual behavior in specific regions, as well as the factors that influence these behaviors.

This study, therefore, aims to investigate the prevalence and determinants of adolescent heterosexual behaviors among senior secondary school students in Rivers State, Nigeria. By examining the factors that contribute to these behaviors, this research will provide valuable insights that can inform the development of effective interventions to promote safe sexual practices, reduce the incidence of STIs and adolescent pregnancies, and ultimately improve the sexual and reproductive health of adolescents in Rivers State. Furthermore, the study will help identify key areas where public health policies, parental guidance, and educational programs need to be strengthened to address the unique needs of adolescents in this region.

In conclusion, adolescent heterosexual behavior remains a significant concern in many societies, particularly in developing countries like Nigeria. The early initiation of sexual activity, compounded by a lack of comprehensive sexual education and inadequate access to reproductive health services, increases the risks associated with these behaviors. In Nigeria, where adolescent sexual health issues are often overlooked, it is crucial to understand the prevalence and determinants of such behaviors in order to design more effective interventions that can safeguard the health and well-being of adolescents. This study aims to fill this gap by providing a detailed examination of

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

adolescent heterosexual behaviors in Rivers State, Nigeria, and by contributing to the broader discourse on adolescent sexual health in the country.

Purpose of the Study

The purpose of the study was to investigate the prevalence of adolescent heterosexual behaviors among senior secondary school students in Rivers State, Nigeria. Specifically, the study sought to:

- 1. investigate the prevalence of heterosexual behaviors among senior secondary school students in Rivers State.
- 2. ascertain forms of heterosexual behaviors among senior secondary school students in Rivers State.
- 3. ascertain the prevalence of heterosexual behaviors among senior secondary school students in Rivers State based on their age.
- 4. explore the prevalence of heterosexual behaviors among senior secondary school students in Rivers State based on their class level.

Hypotheses

The following null hypotheses which were tested at 0.05 level of significance guided the study.

- 1. There is no significant relationship between age and prevalence of heterosexual behaviors among senior secondary students in Rivers State.
- 2. There is no significant relationship between class level and prevalence of heterosexual behaviors among senior secondary students in Rivers State.

Methodology

Research Design: A descriptive cross-sectional research design was utilized in order to achieve the purpose of this study.

Population of the Study

The population of the study consisted of all public senior secondary school students in the 2022/2023 academic year in Rivers State with a total of one hundred and eighty-five thousand, two hundred and twenty-five (185,225) students. The population of the public senior secondary students in each of the selected schools was gotten through the Rivers State Senior Secondary School Board and advocacy visit to the various schools.

Sample and Sampling Techniques

From the total population of 185,225students, 400 sample size was generated using the Taro Yamane (1967) statistical formula. Thereafter, the sample size for the study was multiplied by three, representing the three senatorial districts. One thousand two hundred (1200) students were randomly selected from twelve (12) LGAs across the three (3) Senatorial Districts. For the composition of respondents, a non-proportionate stratified random sampling technique was utilized to sample equal (100) respondents from each of the sampled schools thereby arriving at 1200 respondents which was used for the study.

Instrument for Data Collection: The data for this study were collected through the administration of a predesigned, re-tested, semi-structured questionnaire to respondents. The structured questionnaire modified was

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

divided into three sections. Section A consisted of sociodemographic characteristics of respondents. Section B comprised of "Yes or No" questions on prevalence/forms of adolescents' heterosexual behavior.

Validation of the instrument: Split half method was used for the reliability of the validated instrument. The analysis revealed a reliability index of 0.77 for the prevalence of adolescents' heterosexual behavior.

Method of Data Analysis: The data analysis method for the study was basically descriptive statistical analyses. The researcher cross-checked all the administered questionnaires one by one for the purpose of completeness and accuracy; serial number was assigned to each question for easy identification and accuracy. The data was computed and analyzed using Statistical Package for Social Sciences (SPSS) version 23 and Microsoft Excel.

Results

What are the forms and prevalence of adolescent heterosexual behaviors among senior secondary school students in Rivers State?

Table 1: Prevalence and types of heterosexual behavior among adolescents: a frequency distribution (N = 1200).

S/N		No	Yes		
	Variables		%	F	%
1	Have you ever held hands with the opposite sex				
2	Have you ever practiced kissing with opposite sex?	192	16.0%	1008	84.0%
2	Thave you ever practiced kissing with opposite sex:	440	36.7%	760	63.3%
3	Have you ever had sexual intercourse?	455	37.9%	745	62.1%
4	Have you ever engaged in oral sex?	288	24.0%	912	76.0%
5	Have you ever engaged in anal sex?	388	32.3%	812	67.7%
6	Have you ever engaged in masturbation?	577	48.1%	623	51.9%
7	Have you ever engaged in blow-job?	674	56.2%	526	43.8%
8	Have you ever engaged in fingering?	673	56.1%	527	43.9%
9	Have you ever engaged in cunnilingus?	793	66.1%	407	33.9%
10	Have you ever engaged in fellatio?	864	72.0%	336	28.0%

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

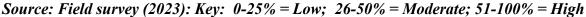
Research Article

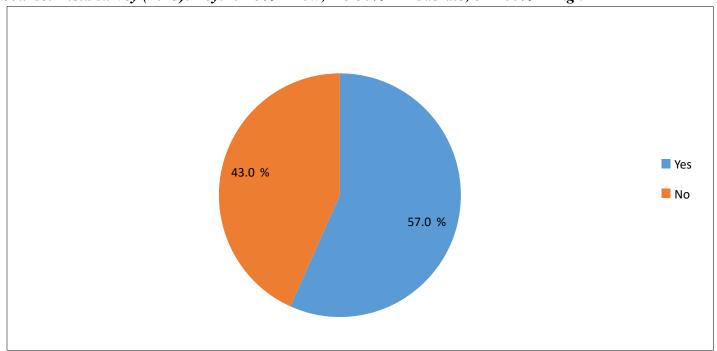
Have you ever experienced dry humping or genital 341 rubbing?

28.4.0% 859

71.6%

<u>AVERAGE</u> 517 43.0% 683 57.0%





Key: 0-25% = Low; 26-50% = Moderate; 51-100% = High

Fig. 1: Prevalence of heterosexual behavior among secondary school students in Rivers State, broken down by gender.

The amount of heterosexual behavior among adolescents in senior secondary schools in Rivers State is shown in Table 1 and Fig. 1. The people who took part were of the opposite sex, and they reported having oral sex (76.0%), anal sex (66.7%), sexual intercourse (62.1%), masturbation (51.9%), and blow-job.

Almost half (43.9%) of those who did cunnilingus (33.9%) and fellatio (28.0%) touched the other sex's breasts or other sensitive body parts. 71.6% of teens have dry humped, which is another important result. The chart makes it clear that 57% of the young people who were surveyed did activities that were not sexual. Because of this, there

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

are a lot of straight seniors finishing from Rivers State. People who are sexually active may have problems with their physical and mental health, which has made some people worried.

Hypothesis 1: Among Rivers State's secondary school adolescents, there is no statistically significant correlation between age and the incidence of heterosexual behavior.

Table 2: Chi-square analysis on significant relationship between Age and the prevalence of adolescents' heterosexual behaviors among senior secondary students in Rivers State

		Prevalence	
	No	Yes	Statistics
F	12	24	
%	1.0%	2.0%	
14 F	45	63	
%	3.8%	5.3%	
15 F	77	91	
%	6.4%	7.6%	
16 F	141	171	
Age %	11.8%	14.3%	
17 F	58	110	
%	4.8%	9.2%	$X_2(7)$
			=14.200
			P<.048
18 F	100	104	
%	8.3%	8.7%	
19 F	76	116	
%	6.3%	9.7%	
20 F	8	4	

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

% 0.7% 0.3%

Table 2 displays the results of a chi-square test that looked at the link between age and the frequency of heterosexual behavior among senior secondary school students in Rivers State. The research found a strong link between age and the frequency of heterosexual practices among teens (X2=14.200, df=7, p<.05). This means that the null hypothesis, which says there isn't a significant link between age and the number of heterosexual acts among senior secondary school students in Rivers State, was thrown out.

Table 3: Chi-square analysis of the association between academic major and the rate of heterosexual conduct among Nigerian high school seniors

Variable			Prevalence		Test	
			No	Yes	Statistics	
	SS1	F	123	153		
		%	10.3%	12.8%		
	SS2	F	157	223		
		%	13.1%	18.6%	$X_2(2)=0.783$	
Class of Study	7				P>.676	
	SS3	F	237	307		
		%	19.8%	25.6%		

Table 3 displays the results of a chi-square study that looked at the link between Rivers State high school students and how often they behaved in a straight way. There was no link between high school students' focus on schoolwork and their reporting of heterosexual acts (X2=0.783, df=2, p>.05). So, the null hypothesis, which says that there is no link between academic discipline and the number of times that heterosexual behavior happens among high school students in Rivers State, was accepted.

Discussion

The result of this study in table 1 indicated that good proportion of adolescents (57.0%) engage in heterosexual behaviors such as having oral, vaginal sexual intercourse among others. It is pertinent that adolescent at this age of transition exposes them to rapid development and growth changes in the body system. The result of this study is in credence with studies of Palmer et al., (2019) which indicated that the prevalence of heterosexual intercourse was significantly high recording about 63.7% and good proportion of the result was traceable to adolescent below

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

18 years of age while age at first sexual debut was 22.4% and 36.2% for age 13-14 years. Lodz et al., (2019) affirmed that the prevalence of risky sexual behaviors among schools adolescents was 7.3% and age above 14 years was 31.7 times more likely to exhibit heterosexual behaviors such as multiple sexual partner and vaginal sex activities. Manjengwa et al., (2019) also buttressed that the prevalence of risky sexual behaviors was 13% and there was variation in the prevalence based on age and gender of adolescents especially among school children. It is plausible that adolescents experience physical and physiological changes that affect their behavior and their activities. As at the time of this study, there was no contrary findings against the outcome of the study. Hence, the prevalence of heterosexual behaviors among adolescent was significantly high.

The age at which adolescents begin sexual intercourse is of significant public health importance, as it has been found to expose them to potential risky outcomes both in the short and long term (Alawode et al., 2021; Akumiah et al., 2020). Studies in other contexts have equally identified that adolescents were engaging in sexual activities even before their 13th birthday (Akumiah, et al. 2020; Adongo, 2019; Durowade et al., 2017). This suggests that adolescents start having sexual relationships as early as 11 years, and therefore, parents, guardians, and health workers should start reproductive health education as early as possible, aimed at empowering children even before they turn 11 years. This also contributes to increasing teenage pregnancies, especially in Africa where about 14 million teenage pregnancies occur each year. It has also been estimated in sub-Saharan Africa that between 10% and 79% of all pregnancies in women below 20 years of age are described as unwanted (Worlds Health Organization, 2020). This suggests the need for youth empowerment on issues of reproductive health.

Outside of the home environment, the sexual behaviors of adolescents are greatly influenced by peers and the perceived benefits of engaging in sexual intercourse. Some adolescent believes that engaging in sexual activities increases their social status and respect among their peers and these perceived social benefits increases their chances of adapting sexual behaviors dictated by their peers (Forman-Alberti, 2015; Dewi, 2012). Adolescent who associates themselves with friends who are sexually experienced and frequently communicate about sex have a higher chance of engaging in sexual norms with the intention of reaping the benefits being told by friends (Widman et al., 2014). This might be suggestive why most of the respondents in our study who have had sex blamed it on peer influence. This points out to the fact that friends of adolescents should never be ignored when making attempts to promote reproductive health in the community.

Conclusion

In regard to the outcome of this study, it was concluded that the prevalence of heterosexual behaviors among adolescent was high and there was a variation in the prevalent rate based on age and gender of adolescent. **Recommendations**

ccommendations

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

In regard to this study, the following recommendations were made:

- 1. Advocacy and community mobilization should emphasize on adolescents heterosexual behaviours to increase awareness and discourage risky sexual behaviours.
- 2. Effective health education programs by school and health Agencies should target adolescents to improve knowledge on sexual issues, promote abstinence and motivate positive behaviours and minimize sexual risk.
- 3. Policy makers and curriculum planners should advocate for inclusion of sexuality education in basic and secondary school curriculum as a matter of priority to foster a positive attitude, knowledge and behavior of the adolescents towards sexuality.
- 4. Parents should prioritize the health and social status of their children monitoring them and caution them against negative behaviours and pattern that may affect their reproductive well-being.

References

- Abels, M. D. & Blignaut, R. J. (2011). Sexualrisk behaviour among sexually active first-year students at the University of the Western Cape, South Africa. *African Journal of AIDS Response*, 10, 255-261.
- Adongo, W. W. (2019). Assessing factors influencing early sexual initiation among adolescents (13 to 19 Years) in Ghana: A qualitative study.
- Akumiah, P. O., Suglo, J. N. & Sebire, S. Y. (2020). Early life exposures and risky sexual behaviors among adolescents: A cross-sectional study in Ghana. *Nigerian Medical Journal*, 61(4), 189–195.
- Alawode, O. A., Ogunwemimo, H., Bolorunduro, M. E. & Awoleye, A. F. (2021). Age at sexual debut and multiple sexual partnerships among adolescents in Nigeria: An assessment of the mediating role of the knowledge of sexually transmitted infections. *Adolescents*, *1*(4), 421–432.
- Dewi, A. P. (2012). The relationship between adolescent characteristics, peer roles and exposure to pornography with adolescent sexual behavior in Pasir Gunung Selatan Village, Depok University Indonesia.
- Durowade, K. A., Babatunde, O. A., Omokanye, L.O., Elegbede, O. E., Ayodele, L. M., Adewoye, K. R., Adetokunbo, S., Olomofe, C. O., Fawole, A. A., Adebola, O. E. & Olaniyan, T. O. (2017). Early sexual debut: Prevalence and risk factors among secondary school students in Ido-ekiti, Ekiti state, South-West Nigeria. *African Health Sciences*, 17(3), 614–622Worlds Health Organization, 2020).

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- Forman-Alberti, A. (2015). Facets of peer relationships and their associations with adolescent risk-taking behavior. https://www.cyc-net.org/featuresx/feature-160509.html
- Kar, S. K., Choudhury, A., & Singh, A. P. (2015). Understanding normal development of adolescent sexuality: A bumpy ride. *Journal of Human Reproductive Sciences*, 8(2), 70–74
- Lanari, D., Mangiavacchi, L. & Pasqualini, M. (2020). Adolescent sexual behaviour and academic performance of Italian students. *Genus*, 76(1).
- Lodz, N. A. Mutalip, M. H. A., Mahmud, M. A. F., Awaluddin S. M., Yoep, N., Paiwai, F., Hashim, M. H., Omar, M., Kasim, N. M. & Ahmad, N. A. (2019). Risky sexual behaviours among school-going adolescent inMalaysia: Findings from national health and morbidity survey 2017. *Journal of Environmental Science and Public Health*, 3(2).
- Manjengwa, P. G., Mangold, K., Musekiwa, A. & Kuonza, L. R. (2019). Cognitive and behavioural determinants of multiple sexual partnerships and condom use in South Africa: Results of a national survey. *Southern African Journal of HIV Medicine*, 20, 868.
- Omorodion, F. I., Etowa, E. B., Ker, J., Ghose, B., & Etowa, J. (2021). HIV exposure through heterosexual contacts: analysis of demographic, behavioral and structural risk factors among black men in Ottawa and Windsor, Ontario. *European Journal of Medical and Health Sciences*, 3(2), 171-179.
- Palmer, M. J., Clarke, L. & Ploubidis, G. B. & Kaye Wellings, K (2019). Prevalence and correlates of 'sexualcompetence' at first heterosexual intercourse among young people in Britain. *British Medical Journal Sexual and Reproductive Health*, 45, 127–137.
- Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S. J., Dick, B. & Ezeh, A. C. (2012).
- Adolescence: A foundation for future health. Lancet, 379, 1630-1640.
- Silas, J. (2013). Poverty and risky sexual behaviors: Evidence from Tanzania. Maryland, USA: ICF International Calverton. http://pubs/pdf/WP88/WP88.pdf.

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

Stephenson, R., Simon, C. & Finneran, C. (2014). Community factors shaping early age at first sex among adolescents in Burkina Faso, Ghana, Malawi, and Uganda. *Journal of Health Population and Nutrition*, 32, 161-175.

UNAIDS(2019).NigeriaHIV/AIDSCountryReport.https://www.unaids.org/en/regionscountries/countries/nigeria.

Widman, L., Choukas-Bradley, S., Helms, S. W., Golin, C. E., & Prinstein, M. J. (2014). Sexual communication between early adolescents and their dating partners, parents, and best friends. *Journal of Sexual Research*, 51(7), 731–741.

| ISSN: 3065-0607