# Original

# Prevalence, Pattern and Determinants of Sexual Violence among Female Undergraduates at the Niger Delta University, Bayelsa State, Nigeria

<sup>1</sup>Chika Onyinyechi Duru, <sup>2</sup>Eugene Maduabuchukwu Ikeanyi, <sup>3</sup>Ulunma Ikwuoma Mariere, <sup>4</sup>Maryjane Chizoba Ani, <sup>5</sup>Dibo Tabot Pughikumo, <sup>6</sup>Alice Romokek Nte

**Corresponding author: Chika Onyinyechi Duru,** Department of Paediatrics and Child Health, Niger Delta University, Bayelsa State, Nigeria. <a href="mailto:chikaduru@ndu.edu.ng;+2348034302438">chikaduru@ndu.edu.ng;+2348034302438</a>

Article history: Received 15 April 2025, Reviewed 23 April 2025, Accepted for publication 02 June 2025

## **Abstract**

**Background**: Sexual violence is a global phenomenon which occurs across various regions and countries in the world. Globally, nearly 1 in 3 women (30%) aged 15-49 years have experienced at least one form of sexual violence in the course of their life. The aim of this study was to determine the prevalence, pattern and determinants of sexual violence among female undergraduates at a tertiary institution in Bayelsa State.

**Methods**: This was a cross-sectional descriptive study involving 429 female undergraduates at the Niger Delta University, Bayelsa State. A self-administered pretested questionnaire was administered over a 3-month period and the data was analyzed using SPSS version 29. The Chi-square test was used to determine factors associated with sexual violence and a multiple logistic regression analysis was done to identify determinants of sexual violence.

**Results:** The participants were aged 15-29 years (mean age  $21.7 \pm 3.1$  years) and majority (94.6%) were single and of the Christian faith (96.3%). The prevalence of sexual violence was 19.3% with unwanted penetrative sex occurring in 60.2% of cases. Being married, co-habiting with a partner, being from a single parent home, being sponsored in school by a relative and having mothers with a secondary or University education were significant determinants of the experience of sexual violence (p<0.05).

**Conclusion:** The prevalence of sexual violence mirrors global figures and highlights the urgent need for the implementation of relevant sexual violence prevention strategies such as providing financial support to female students, enhancing security in schools and educating students on sexual violence.

Keywords: Sexual violence, females, Niger Delta University, Bayelsa State, Nigeria



This is an open access journal and articles are distributed under the terms of the Creative Commons Attribution License (Attribution, Non-Commercial, ShareAlike" 4.0) - (CC BY-NC-SA 4.0) that allows others to share the work with an acknowledgement of the work's authorship and initial publication in this journal.

## How to cite this article

Duru CO, Ikeanyi EM, Mariere UI, Ani MC, Pughikumo DT, Nte AR. Prevalence, Pattern and Determinants of Sexual Violence among Female Undergraduates at the Niger Delta University, Bayelsa State, Nigeria. The Nigerian Health Journal 2025; 25(2): 748 – 756.

https://doi.org/10.71637/tnhj.v25i2.1080



<sup>&</sup>lt;sup>1</sup>Department of Paediatrics and Child Health, Niger Delta University, Amassoma, Bayelsa State, Nigeria

<sup>&</sup>lt;sup>2</sup>Department of Obstetrics and Gynaecology, Niger Delta University, Amassoma, Bayelsa State, Nigeria

<sup>&</sup>lt;sup>3</sup>Department of Community Medicine and Public Health, Federal Medical Centre, Yenagoa, Bayelsa State, Nigeria

<sup>&</sup>lt;sup>4</sup>Department of Paediatrics and Child Health, Federal Medical Centre, Yenagoa, Bayelsa State, Nigeria

<sup>&</sup>lt;sup>5</sup>Department of Human Physiology, Niger Delta University, Amassoma, Bayelsa State, Nigeria

<sup>&</sup>lt;sup>6</sup>Department of Paediatrics and Child Health, University of Port Harcourt, Port Harcourt, Rivers State, Nigeria



#### Introduction

Globally, 1 in 3 women (30%) aged 15-49 years have experienced at least one form of physical and/or sexual violence in the course of their life. This translates to about 852 million women globally.1 Sexual violence experiences can be perpetuated as part of intimate partner violence (IPV) or as non-sexual partner violence (NPV) though some women have experienced both. Worldwide, IPV accounts for a greater proportion of sexual violence incidents with about 26% of women reporting violence from their partners and 6% reporting sexual violence from non-sexual partners such as family members, friends, acquaintances, or strangers.2 The lifetime prevalence of IPV was found to be the highest in the Africa and South-East Asia regions of the World Health Organization (WHO), with a lifetime prevalence of 33%.1 Furthermore, regional estimates reveal that for girls and women aged 15-49 years, the prevalence for NPV ranges from 2-4% in Asia, 4-6% in Africa, 10-12% in Europe and Latin America to 12-19% in Northern America and Australia. 1

The term "Sexual violence", according to the World Health Organization (WHO) 2013, is defined as 'any sexual act, attempt to obtain a sexual act, or other act directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting.' It includes acts ranging from verbal aggravation to forced penetration and also from social coercion to physical force. Acts such as sexual assault, rape/attempted rape, and sexual abuse, physical or psychological coercion of a person to include in unlawful sexual acts including prostitution and exposure to pornographic materials, amongst others are all forms of sexual violence. It also includes when the act occurs with a person who is unable to provide consent, for example, to a child, disabled or intoxicated person. <sup>3</sup>

Sexual violence is an extremely traumatic event associated with physical, mental and psychosocial consequences, some of which include severe physical injuries, suicidal attempts, substance dependence, sleep difficulties, eating disorders, sexual dysfunction, risk of sexually transmitted infections such as that by the human immunodeficiency virus (HIV), and other gynaecological problems, suicide tendencies and homicide. In addition, there are indirect economic costs to women who experience violence when they miss work and lose their earnings which translate to lost revenue generation at the individual, society and country levels. Many of these consequences are short to longterm and in many cases lifelong.1,4,5 In addition to gender inequality and norms on the acceptability of violence against women, low education of females has

been reported as a risk factor for sexual violence. In academic institutions, there is a rising global prevalence in the documentation of sexual violence among women. <sup>2,6,7</sup> This is corroborated by a nationwide study conducted in Nigeria which found the prevalence of sexual violence to be 37% amongst students in universities and polytechnics.8 Media and journal publications also attest to the public concern of sexual violence in University settings with rising incidence and prevalence in Nigeria. 9-12 The National Campus Climate Baseline Survey on Sexual Harassment in Nigerian Tertiary Institutions 2024 report revealed an alarming national prevalence of sexual violence across postgraduate institutions of 63%. 10 Regional studies across Nigeria reported a prevalence of sexual violence in university institutions of 48% (South-west) 13, 46.6% (North-east), 14 46.7% (South-south) 15 and 15.2%-52.6% (South-east).16,17

However, the study in South-south Nigeria, Port-Harcourt 15 the closest geographically to the current study site was done a decade ago, highlighting the need for this study to provide more current data. In Nigeria, amongst female undergraduate students, rape remains the most reported form of sexual violence<sup>8,16</sup> although some studies have shown the rising prevalence of other forms of sexual violence such as fondling, grabbing of body parts, threats, verbal abuse and other forms of coercive sexual behaviours. 13-15,18 Sexual violence is a crime which is usually under reported due to various reasons such as the fear of victimisation, stigmatization and shame. 19,20 The high rate of non-disclosure, a culture of silence, fear and stigma associated with sexual violence experience and disclosure result in a gross underestimation of the true prevalence of sexual violence both globally and in Nigeria.

There is a paucity of information about sexual violence among female undergraduates in Bayelsa State. Consequently, this study sought to determine the prevalence, describe the pattern and uncover the determinants of sexual violence among female undergraduates at the Niger Delta University Bayelsa State. This information will provide very useful data-driven insights that can support policy formulation and the design of interventions to address this public health problem.

# Methodology Study design and setting

This descriptive cross-sectional survey was carried out in the Southern Ijaw Local Government Area (LGA) of



Bayelsa State, South-south Nigeria. The study setting was the Niger Delta University (NDU) located in Wilberforce Island, Amassoma which is approximately 30km from Yenagoa, the capital of Bayelsa State. The NDU has 12 faculties and 3 campuses with over 3000 staff and an undergraduate population of over 20,000. Students from all parts of Nigeria and beyond are admitted into the undergraduate programmmes.

# Study population

Female undergraduates between the ages of 15 and 49 years who were enrolled in the university at that time and gave informed consent were included in the study. Those who were ill or mentally incompetent to answer the questionnaire were excluded.

# Sample size determination

The sample size for the study was estimated using the Fisher's formula for estimation of sample size for a cross-sectional study:  $n = Z^2pq/e^2$ , where p = Proportion of sexual violence of 46.7% reported in a study in University of Port Harcourt Nigeria in 2014 (15). This estimated a minimum sample size of 382 and to account for non-response, a 10% adjustment was factored in obtaining 429.

#### Sampling technique

Systematic random sampling was done to recruit 429 female undergraduates from all 12 faculties. From the faculty office, the student list was accessed and used to determine the number of females per faculty. Using proportionate sampling, a sampling frame was determined based on the number of female students in the faculty. For example, if there are 180 female students from the Faculty of Clinical Sciences and 36 students are to be selected, this number (180) will be divided by 36 to get 5 (180/36=5); therefore, after every 5th number on the list, a student was selected to participate in the study. If any selected student refused to give consent, the next student in line was then chosen. This process continued till the minimum sample size of 429 was obtained.

## Data collection tools and procedures

A semi-structured, self-administered questionnaire was developed by the principal investigator, with input from co-authors, based on established instruments from prior studies on sexual violence. <sup>15-18</sup> Prior to data collection, the questionnaire was pretested among 45 female undergraduate students at Federal University Otuoke, a tertiary institution in Bayelsa State with demographic and institutional characteristics comparable to the study population. This pretesting phase assessed the instrument's clarity, relevance, and ability to elicit

accurate responses. Ambiguous or poorly understood items were refined to align with the study objectives before final administration to eligible and consenting participants. In addition, content validity was done by public health experts. The questionnaire comprised sections on the socio-demographic and academic characteristics of the participants as well as their awareness, perception and knowledge of sexual violence among others. Additional information on the participant's personal experience of sexual violence, and use of recreational substances was also obtained. The study was conducted over a 3-month period from 1st February to 30th April 2024.

#### Data quality assurance and Confidentiality

Participants were encouraged to give sincere, correct and independent answers and were assured that their responses would be kept confidential. After obtaining written informed consent, the participant was given the pre-tested questionnaire to fill individually in a private area while the research assistant waited to collect the questionnaire. After filling in the questionnaire, the research assistant cross-checked the retrieved questionnaire to ensure that it was complete and correctly filled.

#### Study variables

The prevalence of sexual violence was the primary outcome variable in this study; it was defined as the proportion of women who had experienced one or more of the following types of sexual violence either rape, sexual assault, or sexual harassment.

#### Data analysis

Data entry, cleaning and analyses were done using the IBM Statistical Package for Social Science (SPSS) version 29.0. Frequencies and percentages were used for categorical variables while means and standard deviations were used for numerical variables. The Chisquare test was used to determine factors associated with sexual violence and a multiple logistic regression analysis was used to identify determinants of sexual violence in the study population. The strength of association was determined using odds ratio at 95% confidence interval with the level of significance set at <0.05.

### **Ethical considerations**

Ethical approval for the study was obtained from the Research and Ethics Committee of the Niger Delta University, Amassoma, Bayelsa State (Ref No: 01-0712023/014). Written informed consent was obtained from all eligible participants.



#### Results

Four hundred and twenty-nine (429) completed responses, representing a 92% response rate were analysed in this study. The ages of the participants ranged from 15-29 years with a mean age of  $21.7\pm3.1$  years and a quarter of them were adolescents aged 15-19 years. The majority of the participants were Christians (96.3%) and single (94.6%). The parents of 302 of them (70.5%) were married and living together. Most of the participants came from the upper social class (40.3%) or middle social class (42.7%) families. (Table 1

**Table 1:** Socio-demographic characteristics of the respondents

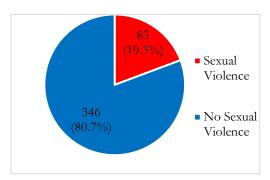
| respondents             |           |         |
|-------------------------|-----------|---------|
| Characteristics         | Frequency | Percent |
|                         | N = 429   | (%)     |
| Age Group               |           |         |
| 15 – 19 years           | 110       | 25.6    |
| 20 - 24 years           | 240       | 55.9    |
| 25 - 29 years           | 79        | 18.4    |
| Marital Status          |           |         |
| Single                  | 406       | 94.6    |
| Married/Co-habiting     | 23        | 5.4     |
| Family background       |           |         |
| Parents are married     | 302       | 70.4    |
| Parents are co-habiting | 21        | 4.9     |
| Single mother           | 37        | 8.6     |
| Both parents are late   | 10        | 2.3     |
| Father is late          | 29        | 6.8     |
| Mother is late          | 9         | 2.1     |
| Single father           | 6         | 1.4     |
| Other family background | 15        | 3.5     |
| Place of Residence      |           |         |
| Off campus              | 302       | 70.4    |
| On campus               | 127       | 29.6    |
| Residential companion   |           |         |
| Fellow female students  | 200       | 46.6    |
| Live alone              | 139       | 32.4    |
| Parents                 | 46        | 10.7    |
| Living with relatives   | 27        | 6.3     |
| Husband/Boyfriend       | 17        | 4.0     |
| Social Class            |           |         |
| Upper Class             | 173       | 40.3    |
| Middle Class            | 183       | 42.7    |
| Lower Class             | 73        | 17.0    |

The academic characteristics of the participants showed that the largest (23.1%) and least (7.5%) proportion of students were in their 3<sup>rd</sup> and 6<sup>th</sup> years of study

respectively. Almost half of the participants belonged to the Faculties of Social Sciences (19.1%), Clinical Sciences (18.9%) and Law (11.1%). These are presented in Table 2.

**Table 2:** Academic characteristics of participants

| Characteristics         | Frequency | Percent (%) |
|-------------------------|-----------|-------------|
|                         | N = 429   | , ,         |
| Year of Study           |           |             |
| 1st year                | 54        | 12.6        |
| 2 <sup>nd</sup> year    | 74        | 17.2        |
| 3 <sup>rd</sup> year    | 99        | 23.1        |
| 4 <sup>th</sup> year    | 90        | 21.0        |
| 5 <sup>th</sup> year    | 80        | 18.6        |
| 6 <sup>th</sup> year    | 32        | 7.5         |
| Faculty                 |           |             |
| Social Sciences         | 82        | 19.1        |
| Clinical Sciences       | 81        | 18.9        |
| Law                     | 47        | 11.0        |
| Basic Medical Sciences  | 35        | 8.2         |
| Pharmacy                | 34        | 7.9         |
| Arts                    | 32        | 7.5         |
| Nursing                 | 32        | 7.5         |
| Basic Clinical Sciences | 21        | 4.9         |
| Education               | 18        | 4.2         |
| Management Sciences     | 15        | 3.5         |
| Sciences                | 12        | 2.8         |
| Engineering             | 9         | 2.1         |
| Agricultural Technology | 8         | 1.9         |
| Environmental Sciences  | 3         | 0.7         |
| Main sponsor of         |           |             |
| university education    |           |             |
| Both Parents            | 276       | 64.3        |
| Father Only             | 52        | 12.1        |
| Mother Only             | 48        | 11.2        |
| Self                    | 23        | 5.4         |
| Family Member           | 17        | 4.0         |
| Spouse                  | 10        | 2.3         |
| Scholarship             | 3         | 0.7         |



**Figure 1:** Prevalence of sexual violence among participants

the participants, 83(19.35%) reported Among experiencing various forms of sexual violence. Of these, 50 (60.2%) had experienced violent penetrative sexual intercourse while other forms of sexual violence like unwanted touching of sexual organs (38.6%), oral sex (16.9%) being forced to touch their sexual organs while the perpetrator watched (8.4%) and unwanted watching of pornography with the perpetrator (2.4%) reported (Table 3). Fifty (60.2%) of the victims of sexual violence were also physically assaulted during the act with beating (15.7%) and slapping (15.7%) reported as the most common forms of physical violence experienced.

**Table 3:** Pattern of sexual violence experienced among participants

| Characteristics  | Frequency $N = 83$ | Precent (%) |
|--|--------------------|-------------|
| *Forms of Sexual violence experienced  |                    |             |
| Penetrative sex with a penis   | 50                 | 60.2        |
| Touching of sex organ (breast and/or genital) by perpetrator                   | 32                 | 38.6        |
| Being forced to touch the sex organ (breast and/or genital) of the perpetrator | 27                 | 32.5        |
| Oral sex   | 14                 | 16.9        |
| Being forced to masturbate while the perpetrator watched                       | 7                  | 8.4         |
| Penetrative sex with an object   | 3                  | 3.6         |
| Being forced to watch pornography with the perpetrator                         | 2                  | 2.4         |

<sup>\*</sup>Multiple responses

Table 4 shows the results of the bivariate and multiple logistic regression analysis to uncover the determinants of sexual violence. The bivariate regression analysis shows that being married or co-habiting, living off-campus, having a residential companion, higher year of study at the university, being sponsored by a relative or family member and higher mother's educational attainment were significantly associated with an increased odd of experiencing sexual violence (p<0.05). Using multiple logistic regression analysis, the marital status of the female undergraduate; residential companion, year of study, main sponsor and mother's educational attainment were identified as the independent determinants of sexual violence among female undergraduate students. The married/co-habiting female was 4 times more likely to experience sexual violence than a single lady. Female undergraduates living with husbands/boyfriends had a 5-time greater likelihood of experiencing sexual violence significantly increased from the 4th year in the university. Female students in the 5th and 6th year in the University had a 5-time and 6-time higher likelihood of experiencing sexual violence respectively than the female undergraduates in their first year in the university. Furthermore, female students sponsored by relatives/family members and mothers only were 4 times more likely to be victims of sexual violence than those sponsored by both parents. Female students whose mothers had secondary or university education had significantly higher odds of being victims of sexual violence than those of lower educational status.

Table 4: Determinants of Sexual violence among participants

| Characteristics | Bivariate analysis          | Bivariate analysis |                                | Multiple logistic regression analysis |  |
|-----------------|-----------------------------|--------------------|--------------------------------|---------------------------------------|--|
|                 | Crude Odd Ratio<br>(95% CI) | p-value            | Adjusted Odd Ratio<br>(95% CI) | p-value                               |  |
| Marital Status  |                             |                    |                                |                                       |  |
| Single          | 1                           |                    | 1                              |                                       |  |

The Nigerian Health Journal, Volume 25, Issue 2 Published by The Nigerian Medical Association, Rivers State Branch. Downloaded from www.tnhiph.com Print ISSN: 0189-9287 Online ISSN: 2992-345X



The Nigerian Health Journal; Volume 25, Issue 2 – June, 2025 Prevalence, Pattern and Determinants of Sexual violence among female undergraduates Duru et al

| Characteristics         | Bivariate analysis          | Bivariate analysis |                                | Multiple logistic regression analysis |  |
|-------------------------|-----------------------------|--------------------|--------------------------------|---------------------------------------|--|
|                         | Crude Odd Ratio<br>(95% CI) | p-value            | Adjusted Odd Ratio<br>(95% CI) | p-value                               |  |
| Married/Co-habiting     | 2.88 (1.20 – 6.92)          | 0.018*             | 4.48 (1.39 – 14.47)            | 0.012*                                |  |
| Place of Residence      |                             |                    |                                |                                       |  |
| On campus               | 1                           |                    | 1                              |                                       |  |
| Off-campus              | 7.55 (1.01 - 56.69)         | 0.049*             | 2.20 (0.20 - 23.78)            | 0.515                                 |  |
| Residential Companion   | , , ,                       |                    | ,                              |                                       |  |
| Parents                 | 1                           |                    | 1                              |                                       |  |
| Alone                   | 7.12(1.64 - 30.95)          | 0.009*             | 3.80 (0.67 - 21.66)            | 0.133                                 |  |
| Female Students         | 4.83 (1.12 – 20.84)         | 0.035*             | 3.18 (0.58 – 17.37)            | 0.181                                 |  |
| Relatives               | 5.00 (0.90 – 27.86)         | 0.066              | 3.44 (0.31 – 38.64)            | 0.316                                 |  |
| Husband/Boyfriend       | 12.00(2.13 - 67.78)         | 0.005*             | 5.16 (1.77 – 34.73)            | 0.029*                                |  |
| Present Year of Study   | ,                           |                    | ,                              |                                       |  |
| 1st year                | 1                           |                    | 1                              |                                       |  |
| 2 <sup>nd</sup> year    | 2.97(0.79 - 11.21)          | 0.109              | 2.63 (0.68 - 10.13)            | 0.161                                 |  |
| 3 <sup>rd</sup> year    | 3.52 (0.98- 12.63)          | 0.053              | $2.4\dot{5}$ (0.65 – 9.15)     | 0.183                                 |  |
| 4 <sup>th</sup> year    | 4.55 (1.28 – 16.19)         | 0.019*             | 3.47 (1.93 – 12.97)            | 0.035*                                |  |
| 5 <sup>th</sup> year    | 6.86 (1.94 - 24.21)         | 0.003*             | 5.14 (1.41 – 18.69)            | 0.013*                                |  |
| 6 <sup>th</sup> year    | 7.73(1.94 - 30.83)          | 0.004*             | 6.91 (1.68 - 28.37)            | 0.007*                                |  |
| Main Sponsor            | ,                           |                    | ,                              |                                       |  |
| Both Parents            | 1                           |                    | 1                              |                                       |  |
| Family Member           | 3.90 (1.41 - 10.82)         | 0.009*             | 3.84 (1.30 - 11.33)            | 0.015*                                |  |
| Mother Only             | 2.07(1.01 - 4.24)           | 0.047*             | 2.24 (1.06 - 4.74)             | 0.034*                                |  |
| Father Only             | 1.67 (0.81 - 3.45)          | 0.164              | 1.34 (0.62 - 2.93)             | 0.458                                 |  |
| Self                    | 2.44 (0.95 - 6.28)          | 0.065              | 2.60 (0.84 - 7.99)             | 0.096                                 |  |
| Spouse                  | 1.39 (0.29 – 6.79)          | 0.682              | 0.45(0.06 - 3.41)              | 0.442                                 |  |
| Mother's highest educat | ion                         |                    | ,                              |                                       |  |
| No formal education     | 2.29 (9.41 - 12.73)         | 0.345              | 1.25 (0.18 - 8.55)             | 0.820                                 |  |
| Primary School          | 2.47 (0.76 - 8.05)          | 0.134              | 1.71 (0.47 - 6.15)             | 0.412                                 |  |
| Secondary school        | 4.49 (1.80 – 11.17)         | 0.001*             | 3.35 (1.24 – 9.06)             | 0.017*                                |  |
| University graduate     | 2.64 (1.10 - 6.34)          | 0.030*             | 1.92(1.04 - 4.97)              | 0.047*                                |  |
| Postgraduate            | 2.31 (0.86 – 6.15)          | 0.095              | 1.74(0.59 - 5.12)              | 0.312                                 |  |
| NCE/OND/Diploma         | 1                           |                    | 1                              |                                       |  |

<sup>\*</sup>Statistically significant

# Discussion

This study sought to determine the prevalence, describe the pattern and uncover the determinants of sexual violence among female undergraduates at the Niger Delta University Bayelsa State. The prevalence of sexual violence in this study, of about 1 in 5 is close to the 2018 global prevalence estimates by World Health Organization (WHO) which reported about 27% prevalence. However, this is much lower than what was reported in Port Harcourt is much lower than what was reported in Port Harcourt respectively had experienced sexual violence. Similarly, the prevalence among undergraduates in Enugu and Edo States, both in Southern Nigeria were also higher at 52.8% (17) and 64% (22) respectively. However, with these studies

conducted over a decade ago, it is probable that there was an underreporting of the experiences of sexual violence in the study context as has been previously documented. (4,19,21) Compared with other countries, it was reported that in the USA, at least 22% of female undergraduates had experienced at least one form of sexual assault which is close to the findings in this study. (23) The disparity in the prevalence reports from other far regions may be explained by the methodological design used, the definition criteria for sexual violence and the sociocultural differences between them.

The observation of rape as the most common pattern of sexual violence experienced by most of the participants



varied with the findings from studies conducted in Oyo<sup>(18)</sup> Gombe<sup>(14)</sup> and Rivers States<sup>(15)</sup> in Nigeria that reported that sexual harassment was the most common form of sexual violence experienced. This may be because of the different perceptions of what constitutes sexual violence. Although the definition of sexual violence encompasses both contact and non-contact forms of sexual violence, it has been shown that how and what sexual violence means to a person determines what may be reported or disclosed.<sup>(19)</sup>

Among the determinants for sexual violence, residence with non-family members was commonly reported, thus supporting the protective supervisory role of the family in preventing violence. (24,25) However, although not an independent predictor, students living off-campus were more vulnerable than their counterparts probably because there is no institutional protection, which increased the risk of harassment by neighbors, peers, and even casual people.

Consistent with the study in Southwest Nigeria, <sup>(20)</sup> being married or co-habiting was an independent predictor of sexual violence as married or co-habiting students were at higher risk and 4 times more likely to have been victims than single students. Similarly, studies in South Africa<sup>(26)</sup> and Nigeria, <sup>(13,18)</sup> observed that the partners of the victims were the most common perpetrators of sexual violence. This points to the pervasive nature of intimate partner sexual violence (IPSV), in agreement with the WHO report that 27% of women with previous or current partners had experienced IPV at least once in their lifetime, constituting a significant portion of sexual violence globally (1). Intimate Partner Violence (IPV) is a phenomenon that has been well documented in literature. <sup>(1,2,27)</sup>

This study reported that the likelihood of experiencing sexual violence increased with the student's year of study. This may be due to reporting bias as older females are more likely to be knowledgeable and more likely to disclose SV.<sup>(28)</sup> Again, it could be explained by the fact that as students experience sexual violence in various forms and are now able to identify such experiences and the avenues for reporting that they now disclose their experiences. However, this pattern contradicts the findings by other researchers,<sup>(13,15)</sup> where the first-year students were more likely to experience sexual violence and this was attributed to their younger age and naivety.

Financial difficulties were also noted as an important determinant of the experience of sexual violence as students who were sponsored by relatives or selfsponsored were documented to be at increased risk compared to those whose parents supported them. Being exposed to additional financial strain tends to make students susceptible to exploitation. Some selfsponsored students who are unable to meet their financial needs may also embark on relationships with sponsors who sexually exploit them, as demonstrated in other research.(12,15,18,20,27) Indeed, being married, living together with a partner, and being self-sponsored or sponsored by relatives emerged as key risk factors for sexual violence. These findings show the interplay between personal, social, and economic challenges as predisposing factors of sexual violence. Furthermore, the higher risks among later-year students indicates the necessity for ongoing university intervention programs right from the first year.

The findings in this study highlight the need for the implementation of sexual violence prevention strategies which include providing support on campuses, enhancing security in school and at the community level, and paying attention to the social and cultural contexts as it offers an opportunity for multi-pronged prevention.

# Strengths and limitations of the study

This study is one of the most recent research on sexual violence conducted in a tertiary institution in Bayelsa State which updates the existing body of knowledge on the topic from this region. Although it was a descriptive study which involved obtaining retrospective information from participants, it may be affected by recall bias. Furthermore, given the sensitive nature of the topic, social desirability bias may have impacted on the responses the responses from the participants. By being a cross-sectional study, causality cannot be inferred. Nevertheless, the findings from this study are critical and relevant to needed evidence to address sexual violence not just in the study context but also in similar contexts across Africa and the world.

#### **Declarations**

**Author Contributions:** COD conceptualized the work, collected and analyzed the data and wrote the first draft of the manuscript. MO and UIM wrote the second draft of the manuscript. EMI, ARN and DPT supervised the



conduct of the study and critically revised the final draft of the manuscript.

**Conflicts of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

*Ethical Considerations:* Ethical approval for the study was obtained from the Research and Ethics Committee of the Niger Delta University, Amassoma, Bayelsa State (Ref No: 01-0712023/014).

**Acknowledgments:** The authors gratefully acknowledge the Bayelsa State Government for funding the study through the Education Development Trust Fund Board. We also thank the research assistants who helped with data collection.

#### References

- 1. World Health Organization. Violence against women prevalence estimates, 2018: global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women [Internet]. World Report on Violence and Health. 2021. 1–112 p. Available from:
  - https://www.who.int/publications/i/item/978924 0022256
- World Bank. Violence against women and girls –
  what the data tell us | World Bank Gender Data
  Portal [Internet]. 2019 [cited 2025 Mar 6]. Available
  from: https://genderdata.worldbank.org/en/datastories/overview-of-gender-based-violence
- 3. World Health Organization, Pan American Health Organization (WHO). Understanding and addressing violence against women: Sexual Violence. World Heal Organ. 2013;2.
- O'Shea B, Feicht R, Brown M, Numer M. Rethinking sexual violence labels: exploring the impact of 'victim' and 'survivor' discourse. Eur J Psychotraumatol [Internet]. 2024 [cited 2025 Mar 6];15(1). Available from: https://www.tandfonline.com/action/journalInfor mation?journalCode=zept20
- Women UN. Facts and figures: Ending violence against women | UN Women – Headquarters [Internet]. [cited 2025 Mar 6]. Available from: https://www.unwomen.org/en/articles/facts-and-figures/facts-and-figures-ending-violence-against-women

- 6. World Health Organization (WHO). Violence against women [Internet]. [cited 2025 Mar 6]. Available from: https://www.who.int/newsroom/fact-sheets/detail/violence-against-women
- 7. Wood L, Hoefer S, Kammer-Kerwick M, Parra-Cardona JR, Busch-Armendariz N. Sexual Harassment at Institutions of Higher Education: Prevalence, Risk, and Extent. J Interpers Violence. 2021; 36(9–10):4520–44.
- 8. Ogunfowokan AA, Samson-Akpan PE, Arije O, Olatubi MI, Salau OR, Garba SN, et al. Characteristics of higher education students who reported sexual violence: a Nigerian national study. BMC Public Health. 2024;24(1):1–10.
- Kazakli O. Sexual Harassment A Significant
   Obstacle to Academic Freedom in Nigerian Higher
   Education. Dangered Scholars Worldwide
   [Internet]. 2024 Dec 10 [cited 2025 Mar 21];
   Available from:
   https://www.endangeredscholarsworldwide.net/post/sexual-harassment-a-significant-obstacle-to-academic-freedom-in-nigerian-higher-education
- Bolaji A. Survey finds 63% of female students are sexually harassed. 2024 Nov 27 [cited 2025 Mar 21]; Available from: https://www.universityworldnews.com/post.php?s tory=20241127070228750
- BBC Africa Eye. "Sex for grades": Undercover in West African universities. Online [Internet]. 2019 Oct 7 [cited 2025 Mar 21]; Available from: https://www.bbc.com/news/av/world-africa-49907376
- 12. Oluyemi Adesoji J, Adejoke Adijat J, Olanrewaju Patrick O, Ayodeji Aliu B, David FO, Emmanuel A, et al. Sex for Grades: Untold Stories of Sexual Harassment in Institutions of Higher Learning in Nigeria. Pap Educ Dev. 2023;41(2):23–38.
- 13. Iyanuoluwa A, Bello O, Jegede OS, Ijitade G, Aderinto N, Olajide AO. Prevalence, Pattern, and Perception of Female Undergraduates about Sexual Harassment in a Tertiary Institution in Southwestern Nigeria: An Evaluation of the National Bill on Sexual Harassment. 2023;369–74.
- 14. Laima CH, Bako B, El-Nafaty UA, Abubakar JD, Mohammed A, Laima NH, et al. Prevalence, Perception, And Pattern of Sexual Violence and Rape Among Female Students of Tertiary Institutions in Gombe, North-east, Nigeria. Jewel J Med Sci. 2021;2(1):40–8.
- 15. Mezie-Okoye MM, Alamina FF. Sexual violence among female undergraduates in a tertiary institution in Port Harcourt: prevalence, pattern,



The Nigerian Health Journal; Volume 25, Issue 2 – June, 2025 Prevalence, Pattern and Determinants of Sexual violence among female undergraduates Duru et al

- determinants and health consequences. Afr J Reprod Health. 2014;18(4):79–85.
- 16. Duru CB, Iwu AC, Aguocha CM, Aguocha CM, Oluoha UR, Okedo-Alex IN, et al. Sexual Behavior and Abuse: A Case Study of University Undergraduates in Tertiary Institutions in Imo State, Nigeria. Int J Emerg Trends Soc Sci. 2018;2(2):52–63.
- 17. Dibia SIC, Esom E., Abbah OIA, Ononuju AH. Prevalence and Socio-demographic Factors of Sexual Violence among Female Undergraduates in the University of Nigeria, Nsukka Campus, Enugu State. Int J Hum Kinet Heal Educ. 2023;8(1):234–43.
- Ogunbode OO, Bello FA, Ogunbode AM. Sexual Violence Against Female Undergraduates in a Nigerian Tertiary Institution. Trop J Obstet Gynaecol. 2014;31(1):99-109-109.
- 19. Volkmann ER. Silent Survivors. Ann Fam Med 2017; 15(1):77–9.
- 20. Ajayi AI, Alex-Ojei CA, Ahinkorah BO. Sexual violence among young women in Nigeria: a cross-sectional study of prevalence, reporting and careseeking behaviours. Afr Health Sci. 2023;23(1):286–300.
- 21. Namibia Ministry of Health and Social Services. Clinical Handbook on the Health Care of Survivors Subjected to Intimate Partner Violence and/or Sexual Violence, Namibia. 2016;96. Available from: http://www.who.int/reproductivehealth/publications/violence/vaw-clinical- handbook/en/
- 22. Obi AI, Pop-Yornwin G, Taiwo ET, Adayonfo E, Obi JN. Prevalence and Predictors of Sexual Abuse among University Undergraduates in Benin City, Edo State, Nigeria. J Med Biomed Res. 2024;22(2):17–25.
- 23. Mellins CA, Walsh K, Sarvet AL, Wall M, Gilbert L, Santelli JS, et al. Sexual assault incidents among college undergraduates: Prevalence and factors associated with risk. PLoS One. 2017;12(11):1–23.
- 24. Harry TC. Sexually Transmitted Infections in Rape. Niger Delta Med J. 2018;2(1):24–35.
- 25. Duru CO, Ederiane OE AF. child sexual abuse: a review of cases presenting at the outpatient clinic of a tertiary health centre in Bayelsa State, Nigeria. Glo Adv Res J Med Med Sci. 2014;3(11):354–61.
- 26. Fielding-Miller R, Shabalala F, Masuku S, Raj A. Epidemiology of Campus Sexual Assault Among University Women in Eswatini. J Interpers Violence. 2021;36(21–22):NP11238–63.
- Silverman JG, Raj A. Intimate Partner Violence and Reproductive Coercion: Global Barriers to Women's Reproductive Control. PLoS Med

- [Internet]. 2014 Sep 1 [cited 2025 Mar 6];11(9). Available from: https://genderdata.worldbank.org/en/datastories/overview-of-gender-based-violence
- 28. Maciver JE. Sexual Harassment of Niger Delta University, Bayelsa State's Students: Factors and Consequences. J Resour Distinct. 2017;14(1):1–12.