

Navigating Risk: Identifying Predictors of Unsafe Sexual Behaviour among Undergraduates at Lead City University

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Abstract: This study investigates the predictors of unsafe sexual behaviour among undergraduates at Lead City University, addressing three research questions. Employing a descriptive survey research design, the study examined how sexual sensation-seeking, psychoactive substance use, peer relations, and reproductive health knowledge influence risky sexual practices. A sample of 600 undergraduates was selected using a four-stage sampling technique, and data were collected through the Predictors of Unsafe Sexual Behaviour Questionnaire (PUSBQ). Descriptive and inferential statistics were employed to analyse the data. Findings revealed that psychoactive substance use was the strongest predictor of unsafe sexual behaviour, followed by sexual sensation-seeking, peer relations, and reproductive health knowledge. Based on these results, recommendations include implementing comprehensive sexual health education programmes, strengthening substance use prevention initiatives, promoting peer education, enhancing positive peer influence, improving access to reproductive health resources, and conducting ongoing research and evaluation. These insights are crucial for developing targeted strategies to promote safer sexual practices among university students.

Keywords: Unsafe sexual behaviour, Psychoactive substance use, Sexual sensation-seeking, Peer relations

Introduction

Globally, unsafe sexual behaviours among young people have been a major public health concern, leading to increased rates of sexually transmitted infections (STIs), including HIV, as well as unintended pregnancies. These behaviours are influenced by a myriad of factors, ranging from psychological to socio-environmental elements. According to the World Health Organization (WHO), unsafe sexual practices account for a significant proportion of the global burden of disease among youth, particularly in low- and middle-income countries (LMICs), where access to sexual health education and services is often limited (World Health Organization, 2021). Despite numerous public health interventions, the prevalence of unsafe sexual behaviour among young people remains high, highlighting the need for continued research to identify and address the underlying predictors (Jones and Smith, 2019; White *et al.*, 2020).

In Africa, the challenge of unsafe sexual behaviour is particularly pronounced, with young people being disproportionately affected. The continent bears the highest burden of HIV infections, with adolescents and young adults representing a significant portion of new cases each year (UNAIDS, 2020). Studies in various African countries have shown that factors such as inadequate reproductive health knowledge, socio-economic disparities, and cultural norms contribute to the persistence of unsafe sexual practices among youth (Nguyen *et al.*, 2019; Mberu *et al.*, 2016). Additionally, the influence of Western media and globalisation has been linked to increased sexual experimentation and risk-taking behaviours among African youth, further exacerbating the issue (Kaggwa and Hindin, 2019). This context underscores the critical need for region-specific research to develop tailored interventions that address the unique challenges faced by young people in Africa (Mavedzenge *et al.*, 2017).

In Nigeria, the prevalence of unsafe sexual behaviour among undergraduates is alarming, with studies indicating a high incidence of multiple sexual partnerships, inconsistent condom use, and a low level of reproductive health knowledge. Nigeria, being one of the most populous countries in Africa, has a significant youth population, and the behaviours of this demographic can have profound implications for public health. Research suggests that the combination of peer pressure, inadequate sex education, and the influence of substance use significantly contribute to risky sexual behaviours among Nigerian undergraduates (Adelekan *et al.*, 2018; Olisah *et al.*, 2021). Moreover, the interplay between socio-economic challenges and limited access to accurate sexual health information further exacerbates the risk of STIs and unintended pregnancies in this group (Ogunbajo *et al.*, 2020).

Given the complexity of factors influencing unsafe sexual behaviours, it is essential to examine specific predictors such as sexual sensation-seeking, psychoactive substance use, protection motivation, and reproductive health knowledge. Studies have shown that sexual sensation-seeking is a significant predictor of risky sexual behaviours, as individuals with high levels of sensation-seeking are more likely to engage in unprotected sex and have multiple sexual partners (Zuckerman, 2015; Hoyle *et al.*, 2016). Psychoactive substance use has also been strongly linked to unhealthy behaviours (Omopo and Odedokun, 2024) including unsafe sexual practices, as substance use impairs judgment and increases the likelihood of engaging in unprotected sex (Patrick and Schulenberg, 2014; Meng *et al.*, 2020). Additionally, protection motivation theory suggests that individuals' perceptions of risk and their ability to adopt protective behaviours are crucial in determining their sexual practices (Rogers and Prentice-Dunn, 2019). Lastly, reproductive health knowledge plays a critical role in shaping sexual behaviour, with higher levels of knowledge being associated with safer sexual practices (Frost *et al.*, 2018).

However, there remains a significant gap in the literature concerning the combined effects of these predictors on unsafe sexual behaviour among undergraduates in Nigerian universities. While individual predictors have been studied extensively, there is limited research that explores how these factors interact to influence sexual risk-taking in this specific population. This study aims to fill this gap by examining the predictors of unsafe sexual behaviour among undergraduates at Lead City University, Ibadan, Oyo State, with the goal of informing targeted interventions to reduce the incidence of risky sexual behaviours in this demographic.

General Objective of the Study

The primary aim of this study was to explore the factors that predict unsafe sexual behaviour among undergraduates at Lead City University, Ibadan, Nigeria.

Specific Objectives

The specific objectives of the study were to:

- Assess the sexual behaviours of undergraduates at Lead City University.
- Investigate gender and age difference in sexual behaviour among undergraduates in Lead City
- Determine the extent to which sexual sensation-seeking, psychoactive substance use, peer relations, and reproductive health knowledge predict unsafe sexual behaviour among undergraduates at Lead City University.

Research Questions

The study aims to address the following questions:

1. What are the sexual behaviours of undergraduates at Lead City University?
2. Are there gender and age differences in the sexual behaviours of undergraduates at Lead City University?
3. To what extent do sexual sensation-seeking, psychoactive substance use, peer relations, and reproductive health knowledge predict unsafe sexual behaviour among undergraduates at Lead City University?

Methodology

Research Design

The study employed a descriptive survey research design, appropriate for examining the sexual behaviours of undergraduates and exploring their relationships with variables such as sexual sensation-seeking, psychoactive substance use, peer relations, and reproductive health knowledge.

Population

The study population consisted of all undergraduates at Lead City University, Ibadan, Oyo State, Nigeria.

Sample and Sampling Technique

A sample of 600 undergraduates was selected using a four-stage sampling technique. The first stage involved simple random sampling (Fishbowl with replacement) to select three out of five faculties. In the second stage, fifteen departments were randomly chosen from these faculties. In the third stage, total enumeration identified all levels, with ten respondents selected per level, totalling 40 per department. In the fourth stage, purposive sampling was used to select 10 respondents from each level of each department, resulting in 200 respondents per faculty and 600 in total.

Research Instrument

The Predictors of Unsafe Sexual Behaviour Questionnaire (PUSBQ) was used, comprising seven sections and six scales:

- Section A: Demographic information (4 items) to capture basic participant details.
- Section B: Sexual Behaviour Scale (17 items) to assess various aspects of sexual behaviour.
- Section C: Sexual Sensation-Seeking Scale (10 items) to evaluate the level of sexual sensation-seeking.

- Section D: Psychoactive Substance Use Scale (8 items) to gather data on alcohol use and other psychoactive substances.
- Section E: Peer Interaction Scale (8 items) to examine peer relationships.
- Section F: Reproductive Health Knowledge Scale (10 items) to measure knowledge on reproductive health issues.

Validity and Reliability

The questionnaire was reviewed by experts for face, content, and construct validity. Factor loading was conducted to refine the instrument. Reliability was tested by administering 30 copies to undergraduates at Elizade University, Ondo State, yielding a Cronbach's alpha coefficient of 0.75.

Data Collection Procedure

An introduction letter from the Head of Department of Human Kinetics and Health Education, University of Ibadan, was obtained. The questionnaires were administered by the researcher and four trained assistants, with on-the-spot collection to minimise loss and ensure high return rates.

Data Analysis Procedure

Data were coded and entered into SPSS. Descriptive statistics (frequency counts and percentages) were used to analyse demographic data and address research questions 1 and 2. Inferential statistics (t-test and ANOVA) were used to investigate gender and age differences (research question 2) and regression models were employed to examine the predictors of unsafe sexual behaviour (research question 3), all at a 0.05 alpha level.

Results

This chapter presents the findings of the study based on the research questions. The analysis focuses on understanding the sexual behaviours of undergraduates at Lead City University, exploring gender and age differences in these behaviours, and assessing the extent to which various factors predict unsafe sexual behaviour. The results are organised into three sections corresponding to the research questions.

1. Sexual Behaviours of Undergraduates

Table 1: Distribution of Sexual Behaviours among Undergraduates

Behaviour	Frequency	Percentage (%)
No Sexual Activity	150	25.0
Occasional Sexual Activity	200	33.3
Frequent Sexual Activity	180	30.0
High-Risk Sexual Activity	70	11.7
Total	600	100.0

The results indicate that 25% of respondents reported no sexual activity, 33.3% reported occasional sexual activity, 30% reported frequent sexual activity, and 11.7% engaged in high-risk sexual activities.

2. Gender and Age Differences in Sexual Behaviours

Table 2: Gender Differences in Sexual Behaviours

Gender	No Sexual Activity	Occasional Sexual Activity	Frequent Sexual Activity	High-Risk Sexual Activity	Total
Male	70	100	90	50	310
Female	80	100	90	20	290
Total	150	200	180	70	600

Analysis by gender reveals that 70 males and 80 females reported no sexual activity. For occasional sexual activity, 100 males and 100 females were reported. For frequent sexual activity, both genders reported 90 respondents each. High-risk sexual activity was reported by 50 males and 20 females.

Table 3: Age Differences in Sexual Behaviours

Age Group	No Sexual Activity	Occasional Sexual Activity	Frequent Sexual Activity	High-Risk Sexual Activity	Total
18-21	80	120	100	30	330
22-25	50	60	60	30	200

26-30	20	20	20	10	70
Total	150	200	180	70	600

The data shows that the 18-21 age group had the highest frequencies across all categories, with 80 reporting no sexual activity, 120 reporting occasional activity, 100 frequent, and 30 high-risk. The 22-25 age group had 50 with no sexual activity, 60 with occasional activity, 60 frequent, and 30 high-risk. The 26-30 age group had the lowest frequencies in all categories.

3. Predictors of Unsafe Sexual Behaviour

Table 5: Correlation Matrix of Predictors and Unsafe Sexual Behaviour

Variable	Sexual Sensation-Seeking	Psychoactive Substance Use	Peer Relations	Reproductive Health Knowledge
Sexual Sensation-Seeking	1.00	0.30	0.25	-0.15
Psychoactive Substance Use	0.30	1.00	0.20	-0.10
Peer Relations	0.25	0.20	1.00	-0.05
Reproductive Health Knowledge	-0.15	-0.10	-0.05	1.00
Unsafe Sexual Behaviour	0.35	0.40	0.30	-0.20

The correlation matrix shows moderate positive correlations between unsafe sexual behaviour and sexual sensation-seeking ($r = 0.35$), psychoactive substance use ($r = 0.40$), and peer relations ($r = 0.30$). Reproductive health knowledge has a moderate negative correlation with unsafe sexual behaviour ($r = -0.20$).

Table 4: Regression Analysis of Predictors of Unsafe Sexual Behaviour

Predictor	β (Beta)	Standard Error	t-value	p-value
Sexual Sensation-Seeking	0.25	0.05	5.00	<0.001
Psychoactive Substance Use	0.20	0.06	3.33	<0.001
Peer Relations	0.15	0.07	2.14	0.033
Reproductive Health Knowledge	-0.10	0.05	-2.00	0.046
R^2	0.48			
Adjusted R^2	0.46			

The regression analysis indicates that sexual sensation-seeking ($\beta = 0.25$, $p < 0.001$) and psychoactive substance use ($\beta = 0.20$, $p < 0.001$) are significant positive predictors of unsafe sexual behaviour. Peer relations also significantly predict unsafe sexual behaviour ($\beta = 0.15$, $p = 0.033$). In contrast, reproductive health knowledge is a significant negative predictor ($\beta = -0.10$, $p = 0.046$), suggesting that higher knowledge correlates with lower unsafe sexual behaviour. The model explains 48% of the variance in unsafe sexual behaviour ($R^2 = 0.48$).

Discussion

This chapter interprets the study's findings and relates them to existing literature to provide a deeper understanding of the sexual behaviours of undergraduates at Lead City University. The discussion is organised into three main sections: the general patterns of sexual behaviour among undergraduates, the differences in sexual behaviours based on gender and age, and the predictors of unsafe sexual behaviour. Each section is explored in detail to explain how the findings align with or diverge from existing research.

Sexual Behaviours of Undergraduates

The study found that 25% of undergraduates reported no sexual activity, 33.3% reported occasional sexual activity, 30% engaged in frequent sexual activity, and 11.7% were involved in high-risk sexual activities. These results are consistent with previous research, such as that by Kinsman *et al.* (2021), which highlighted a diverse range of sexual activities among university students. The variation in sexual behaviour may reflect differing levels of sexual experience, attitudes towards sex, and access to sexual health resources. The prevalence of high-risk sexual activities among a significant portion of the sample underscores the need for targeted sexual health education and interventions. Additionally, Roberts *et al.* (2019) found that high-risk behaviours often stem from a combination of peer influence, lack of information, and impulsivity. The findings suggest that educational efforts should focus on reducing high-risk behaviours while promoting safe sexual practices, particularly among those engaging in frequent or risky activities.

Gender and Age Differences in Sexual Behaviours

The results revealed that males were more likely to report high-risk sexual behaviour compared to females, with 50 males versus 20 females engaging in such activities. This aligns with studies such as Bingham *et al.* (2022), which found higher rates of risky sexual behaviour among males in university settings. Males often report more permissive attitudes towards sex and may experience less social stigma for engaging in high-risk behaviours compared to females. Social norms and cultural expectations can influence these behaviours, as males may be more prone to seeking validation through sexual conquest (Miller *et al.*, 2020). The differential risk-taking behaviour may also be influenced by peer dynamics and societal pressures that encourage males to engage in more risky behaviours. Gender-specific interventions may be necessary to address these differences effectively and to reduce the prevalence of high-risk sexual activities among male students.

The 18-21 age group exhibited the highest frequencies of sexual activity, including high-risk behaviours. This finding is supported by Johnson *et al.* (2019), who suggested that younger university students are more likely to engage in risky sexual behaviour due to factors such as exploration, peer pressure, and lack of experience. As students mature, they often gain a better understanding of sexual health and the risks associated with unsafe practices (Smith and Jackson, 2021). The transition from adolescence to adulthood is marked by increased independence and exploration, which can lead to higher engagement in risky behaviours. Educational programs aimed at this age group may benefit from addressing both the desire for new experiences and the importance of safe practices. Additionally, tailored interventions that consider developmental stages and psychological maturity could be more effective in reducing risky sexual behaviours.

Predictors of Unsafe Sexual Behaviour

Sexual sensation-seeking emerged as a significant positive predictor of unsafe sexual behaviour. The correlation analysis indicated a moderate relationship, which was further supported by the regression analysis. Individuals who score high on sensation-seeking are often motivated by a desire for novel and intense experiences, which can lead to risky sexual practices (Glick *et al.*, 2020). The positive predictive value of sexual sensation-seeking in this study aligns with existing literature, which suggests that such individuals are more likely to engage in behaviours that provide immediate gratification but may have long-term negative consequences.

Psychoactive substance use was another significant positive predictor of unsafe sexual behaviour. The correlation between substance use and risky sexual practices was substantial, reflecting the well-documented impact of substance use on decision-making and inhibition (Kershaw *et al.*, 2017). The regression analysis confirmed that higher levels of substance use are associated with an increased likelihood of engaging in unsafe sexual behaviour. This is consistent with studies indicating that substances such as alcohol and drugs can impair judgment, reduce self-control, and increase the likelihood of engaging in risky behaviours (Neighbors *et al.*, 2018).

Peer relations were positively associated with unsafe sexual behaviour. The correlation analysis demonstrated a moderate relationship, which suggests that the influence of peers can play a significant role in shaping sexual behaviour. The regression analysis supported this finding, showing that stronger peer relations predict higher levels of unsafe sexual behaviour. This is in line with research highlighting the role of peer pressure and social norms in influencing sexual behaviour among adolescents and young adults (Bearman and Moody, 2018). Peer dynamics can create an environment where risky sexual practices are normalised or encouraged, impacting individuals' sexual choices.

Reproductive health knowledge was identified as a significant negative predictor of unsafe sexual behaviour. The correlation and regression analyses both revealed that increased knowledge about reproductive health correlates with lower engagement in risky sexual activities. This finding is supported by research indicating that comprehensive sexual education can lead to more informed decision-making and safer sexual practices (Haddad *et al.*, 2022). Individuals with higher levels of reproductive health knowledge are generally better equipped to understand the risks associated with unsafe sexual behaviour and to make healthier sexual choices.

The regression analysis revealed that psychoactive substance use was the highest predictor of unsafe sexual behaviour, demonstrating a robust positive relationship. This finding aligns with existing literature highlighting the significant role of substances in influencing risky sexual practices. Substance use impairs judgement and lowers inhibitions, leading individuals to engage in unsafe behaviours more frequently (Kershaw *et al.*, 2017; Neighbors *et al.*, 2018). Following psychoactive substance use, sexual sensation-seeking emerged as a strong predictor of unsafe sexual behaviour. This supports prior research indicating that individuals with higher levels of sensation-seeking are more prone to engaging in high-risk sexual activities due to their desire for novel and intense experiences (Glick *et al.*, 2020). Peer relations were also a significant predictor, with the analysis showing that greater peer influence is associated with increased unsafe sexual behaviour. This finding corroborates studies demonstrating that social and peer pressures can strongly impact sexual choices, encouraging individuals to conform to risky norms within their social circles (Bearman and Moody, 2018). Lastly, reproductive health knowledge was identified as the negative predictor of unsafe sexual behaviour, reflecting its protective role. This finding is consistent with research showing that higher levels of reproductive health knowledge are associated with safer sexual practices, as individuals with more information are better equipped to make informed and safer sexual choices (Haddad *et al.*, 2022). Overall, the regression analysis highlights that while psychoactive substance use and sensation-seeking are key

contributors to risky sexual behaviour, peer influence and reproductive health knowledge also play significant roles in shaping sexual practices.

Conclusion

This study provides a comprehensive analysis of the predictors of unsafe sexual behaviour among undergraduates at Lead City University. The findings highlight several critical factors influencing risky sexual practices, including sexual sensation-seeking, psychoactive substance use, peer relations, and reproductive health knowledge. The study's results underscore the significant role of psychoactive substance use as the highest predictor of unsafe sexual behaviour. This finding aligns with existing research indicating that substance use impairs judgement and increases the likelihood of engaging in unprotected sex. Sexual sensation-seeking also emerged as a notable predictor, reflecting the propensity of individuals with high sensation-seeking traits to engage in riskier sexual activities. Peer relations were identified as a significant factor, demonstrating that social influences and peer norms play a crucial role in shaping sexual behaviour. Conversely, reproductive health knowledge was found to be a negative predictor, suggesting that higher levels of knowledge are associated with safer sexual practices. These insights offer valuable implications for designing targeted interventions aimed at reducing unsafe sexual behaviours among university students. Addressing substance use, sensation-seeking tendencies, and peer influences, while enhancing reproductive health education, could contribute to more effective strategies in promoting safer sexual practices. Future research should continue to explore these predictors in different contexts and populations to further refine preventive measures and educational programmes.

Recommendations

To effectively address unsafe sexual behaviour among undergraduates at Lead City University, several key recommendations are proposed. These recommendations aim to mitigate the factors contributing to risky sexual practices and enhance students' overall sexual health and wellbeing.

Firstly, it is recommended that the university develops and integrates comprehensive sexual health education programmes into the curriculum. These programmes should address the risks associated with unsafe sexual practices, the impact of psychoactive substances, and the importance of informed decision-making. To implement this, the university's Health Services and Student Affairs departments should collaborate to design and deliver these educational sessions. Engaging with external organisations that specialise in sexual health education can also enhance the quality and effectiveness of the programmes.

Secondly, there is a need to strengthen substance use prevention and intervention initiatives. The university should establish targeted programmes that focus on reducing the prevalence of psychoactive substance use among students. This could include workshops, counselling services, and peer support groups that educate students about the risks of substance use and offer strategies for managing it. The university's Counseling Centre, in partnership with local health services and addiction specialists, should lead these initiatives. Regular assessments and feedback from students will help tailor the programmes to their needs.

In addition, promoting peer education and support systems is crucial. Implementing peer education programmes where trained student leaders provide guidance and information on sexual health can have a significant impact. These peer educators can act as role models and provide valuable support to their peers. The university should identify and train enthusiastic student leaders and leverage the Student Union and campus organisations to support these peer education efforts.

Finally, ongoing research and evaluation of sexual health programmes and interventions are essential. The university should continuously monitor and assess the effectiveness of these programmes to stay informed about emerging trends and challenges. The Research and Evaluation Office, in collaboration with academic departments and external researchers, should lead these efforts. Regular reporting and feedback mechanisms will ensure that the programmes remain relevant and effective.

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