ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONGST UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE

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BENIN CITY, EDO STATE

MAY, 2026

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BEING A ONE YEAR PROJECT PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBBS) DEGREE IN THE UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA.

MAY, 2026

DECLARATION

I hereby declare that this research project titled **"ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONGST UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE"** was carried out by IBUDE OSARUMEN MARVIS with matriculation number MED1810358 under the supervision of **Professor A. I. Obi** and has not been submitted in part or in full elsewhere for any other purpose.

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CERTIFICATION

This is to certify that this research study titled **"ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONGST UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE"** was conducted by IBUDE OSARUMEN MARVIS with matriculation number MED1810358 under the supervision of Professor A. I. Obi. In the Department of Public Health and Community Medicine, College of Medical Sciences, University of Benin as part of the requirements for the award of Bachelor of Medicine, Bachelor of Surgery (MBBS) degree.

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DEDICATION

This project is dedicated to my loving parents, Mr and Mrs Ibude, for their love and continued support throughout my journey through Medical School. I also would like to dedicate this project work to my very supportive friends

ACKNOWLEDGEMENT

I would like to appreciate my parents, Mr and Mrs Ibude, for their continued support and hardwork to see me through this journey through Medical School. Without your sacrifices, sweat, constant monitoring, and love, I would never have made it this far.

I would like to thank my project supervisor, Professor Andrew Obi, for the time he took out to ensure I did nothing short of a great job on this project work. Your constant corrections and guidance have made this work a possibility. I would never have done this without you , Sir.

I would also also like to acknowledge the department of Public Health and Community Medicine for not only giving me the oppurtinity to carry out this research work but also for imbibing in me the necessary knowledge to carry out this research. The postings, lectures, assignments, however stressful they may be, made me a better student.

I would like to thank my friends and colleagues who in one way or another assisted me in carrying out this project work. A special thanks to Aisosa Awo-Osagie for giving me the necessary tools I needed whenever I needed them to complete this project this work.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
AAU	Ambrose Alli University
AOR	Adjusted Odds Ratio
ATR	African Traditional Religion
AYSRH	Adolescent and Youth Sexual Reproductive Health
BIU	Benson Idahosa University
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
FLHE	Family Life and HIV Education
FMoH	Federal Ministry of Health
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
IBM SPSS	International Business Machines Corporation Statistical Package for Social Sciences
IMB	Information-Motivation-Behavioral Skills
NACA	National Agency for the Control of AIDS
NUC	National Universities Commission

Abbreviation	Meaning
OR	Odds Ratio
PrEP	Pre-Exposure Prophylaxis
RSB	Risky Sexual Behaviour
SCT	Social Cognitive Theory
SD	Standard Deviation
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infection
TPB	Theory of Planned Behavior
UNIBEN	University of Benin
WHO	World Health Organization
YFHS	Youth-Friendly Health Services
YRBS	Youth Risk Behavior Survey
YRBSS	Youth Risk Behavior Surveillance System

DEFINITION OF TERMS

Attitude Towards Risky Sexual Behaviour: An individual's internal, emotional, and cognitive evaluation—whether favourable or unfavourable—regarding sexual issues, specific sexual behaviours, and the perceived risks associated with them.

Concurrent Multiple Partnerships: The practice of having or maintaining more than one active sexual partner concurrently or within a specified short timeframe, which significantly expands exposure to sexual networks.

Condomless Sex (Inconsistent Condom Use): Engaging in vaginal, oral, or anal intercourse without the consistent and correct use of barrier protection during every act of penetrative sex.

Early Sexual Debut: The initiation of first sexual intercourse prior to the age of 18 years, a factor historically correlated with higher lifetime sexual risk.

Optimistic Bias: A psychological state and attitudinal deficit where students acknowledge that sexually transmitted infections and unintended pregnancies are real threats to the general campus population, but hold the subjective belief that they are personally immune to these risks.

Prevalence of Risky Sexual Behaviour: The measurable proportion of the student population that has engaged in risky sexual practices, evaluated in this study across both a lifetime timeframe and a recent, 12-month timeframe.

Risky Sexual Behaviour (RSB): Any sexual practice or activity that increases an individual's susceptibility to adverse sexual and reproductive health outcomes, primarily sexually transmitted infections (STIs), HIV/AIDS, and unintended pregnancies.

Sexual Health Knowledge: A student's cognitive grasp of biological facts, transmission mechanics, symptom recognition, and the prevention strategies required to navigate sexual relationships safely.

Substance-Involved Sexual Intercourse: Engaging in sexual encounters or activity under the influence of alcohol or illicit drugs, leading to impaired judgment and diminished capacity to negotiate safe sex.

Transactional Sex: The exchange of sexual favours for financial gain, material gifts, or academic advantages (such as sex for grades), often driven by socioeconomic pressures.

ABSTRACT

Background: Risky sexual behaviour (RSB) among undergraduate students constitutes a significant public health challenge, associated with increased risk of sexually transmitted infections, HIV, and unintended pregnancies. The transition to university life, characterised by newfound autonomy and peer influence, creates vulnerability to risky sexual practices. This study aimed to assess the knowledge, attitudes, prevalence, and factors influencing risky sexual behaviour among undergraduate students in tertiary institutions in Edo State, Nigeria.

Methods: An analytical cross-sectional study was conducted among 635 undergraduate students selected from the University of Benin (UNIBEN) and Benson Idahosa University (BIU), Benin City, Edo State, Nigeria, using a pretested, structured self-administered questionnaire. Respondents were selected by a multistage sampling technique. Data collected were analysed using IBM SPSS version 27. Knowledge was assessed using 34 variables across 10 questions, attitudes using a 5-point Likert scale, and prevalence using lifetime and 12-month recall periods. Statistical significance was set at $p < 0.05$ at 95% confidence interval.

Results: The mean age of respondents was 20.39 ± 2.71 years. Slightly over half (53.9%) were male, and the majority (98.1%) were Christian. Nearly two-thirds (63.3%) were enrolled in health-related faculties. Overall, 76.1% of respondents demonstrated good knowledge of risky sexual behaviour. The majority (79.2%) exhibited negative (protective) attitudes toward RSB. Lifetime sexual activity prevalence was 26.6%, with a mean age of sexual debut of 18.21 ± 2.86 years. Among sexually active respondents, lifetime RSB prevalence was 88.2%, and recent (12-month) RSB prevalence was 90.2%. Unprotected sex was the most common risky practice (75.1% lifetime, 72.4% recent), followed by sex with casual partners (57.4% lifetime, 51.2% recent). Off-campus residence (AOR = 17.50, 95% CI: 3.07–99.72, p = 0.001), poor knowledge (AOR = 54.61, 95% CI: 4.74–628.98, p = 0.001), early sexual debut (AOR = 8.82, 95% CI: 1.11–69.83, p = 0.039), and positive attitude (AOR = 0.04, 95% CI: 0.01–0.30, p = 0.002) were significant independent predictors of lifetime RSB. For recent RSB, male sex (AOR = 0.11, 95% CI: 0.02–0.58, p = 0.009), off-campus residence (AOR = 4.34, 95% CI: 1.04–18.17, p = 0.045), and positive attitude (AOR = 0.19, 95% CI: 0.05–0.79, p = 0.023) were significant predictors.

Conclusion: Despite good knowledge and predominantly protective attitudes, the prevalence of risky sexual behaviour among sexually active undergraduate students in Edo State remains alarmingly high. Off-campus residence, poor knowledge, early sexual debut, male sex, and negative attitudes emerged as key drivers of RSB. There is an urgent need for targeted, skills-based sexual health interventions addressing environmental vulnerabilities, condom negotiation self-efficacy, and male-focused reproductive health education within tertiary institutions in Edo State.

Keywords: Risky sexual behaviour; Undergraduate students; Knowledge; Attitudes; Prevalence; Edo State; Nigeria

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Risky sexual behavioral practices (RSB) among young adults, particularly undergraduate students, is a significant public health challenge, worldwide. Defined as behaviors that increase the risk of sexually transmitted infections (STIs), and unintended pregnancies, such as inconsistent condom use, early sexual debut, and multiple sexual partnerships, RSB continues to pose a threat to the reproductive health of the youth population.[1] The transition to university life represents a critical period of vulnerability as students experience newfound autonomy, away from the direct supervision of parents and guardians.[2]

In Sub-Saharan Africa, the impact of risky sexual behaviors (RSB) is especially pronounced. Evidence from studies conducted in Ethiopia and South Africa shows that, even with improved access to sexual health information, many students still engage in unprotected sexual activities, largely due to a low perception of individual vulnerability.[3,4] In Nigeria, the high occurrence of these behaviors is shaped by the distinctive socio-cultural and economic context of tertiary institutions, which often serve as “risk environments” where peer pressure and the desire for social recognition may outweigh considerations for personal health.[5,6].

In Edo State, findings from studies conducted at Ambrose Alli University (AAU), Ekpoma, highlight concerning patterns in student sexual behavior. While awareness of HIV/AIDS is almost universal (86.7%), knowledge of other sexually transmitted infections, such as gonorrhea and syphilis, remains notably limited.[7] Additionally, a pronounced "knowledge–practice gap" is evident; despite generally favorable attitudes toward condom use, about 93.6% of sexually active students in earlier Edo-based studies reported inconsistent or non-use of condoms.[7] These findings indicate that possessing knowledge alone does not necessarily translate into safer sexual behaviors.

In Nigeria, the determinants of risky sexual behaviors are complex and interrelated. Psycho-social factors, including depression, diminished self-worth, and peer influence, have been shown to significantly contribute to higher engagement in risky practices among students in the Niger Delta region.[8] Moreover, contextual influences, particularly the transition from parental supervision to the largely unregulated environment of off-campus "campus-gate" accommodations. further increase the risk of multiple sexual relationships and substance-related sexual activities.[3,9]

The continued occurrence of these behaviors in tertiary institutions across Edo State indicates that existing interventions may be insufficient in addressing the core attitudinal and socio-economic factors influencing students. Consequently, an up-to-date evaluation of students' knowledge, attitudes, prevalence, and associated determinants is necessary to inform the design of focused, institution-based reproductive health interventions capable of reducing the incidence of STIs and unintended pregnancies among undergraduates in Edo State.

1.2 STATEMENT OF PROBLEM

The health and overall well-being of undergraduate students play a vital role in Nigeria's socio-economic advancement. Ideally, tertiary institutions should serve as settings that promote not only academic achievement but also positive health practices, including strong reproductive health awareness and responsible sexual conduct. This holistic approach, catering simultaneously to the academic, social, mental, and sexual health of the students should be the standard within Nigerian tertiary institutions. Given the expansion of public health education initiatives and the incorporation of sexuality education into academic programs, it is anticipated that university students would naturally demonstrate an adequate, scientifically grounded understanding of sexual health risks. Consequently, they are expected to translate this knowledge into protective, risk-mitigating behaviors, such as consistent and correct condom use, routine STI screening, and a commitment to mutually faithful partnerships.[10]

In contrast, the situation within Nigerian tertiary institutions, Edo State included, reveals a concerning disparity. Although awareness of sexually transmitted infections, such as HIV/AIDS is almost universal, a sustained knowledge–practice gap persists. This creates a demographic that is highly informed yet disproportionately vulnerable. Studies conducted at Ambrose Alli University, Ekpoma, show that despite high levels of awareness of contraceptive methods, an alarming 93.6% of sexually active students reported inconsistent or non-use of condoms.[7] This finding goes to show that the mere acquisition of scientific knowledge does not necessarily lead to behavioral change. Consequently, this gap precipitates severe medical and academic consequences, ranging from the immediate spread of acute STIs to secondary complications such as unintended pregnancies, unsafe abortions, and subsequent academic attrition.

This challenge is further intensified by a complex web of environmental, socio-economic, and psycho-social influences unique to the university ecosystem. Students in the South-South region are increasingly exhibiting a “carefree” orientation toward sexual relationships, often driven by peer normative pressures and the psychological illusion of youthful invulnerability. In this context, immediate gratification is often prioritized over the potential long-term risks of risky sexual behaviour, such as STIs and unintended pregnancies.[6] In tertiary institutions, the transition from strict parental oversight to the largely unrestricted, unsupervised setting of the university campus residences fosters a permissive environment. This sudden autonomy, often compounded by financial pressures that can incentivize transactional sexual encounters, creates a high-risk ecosystem that normalizes unhealthy sexual relationships and sexual activities frequently associated with alcohol and substance use.[8,11]

The persistence of risky sexual behaviors (RSB) among undergraduate students in Edo State poses a profound and escalating public health challenge that extends far beyond the individual to impact the broader healthcare infrastructure. Without rigorous systematic assessment and intervention, students remain highly vulnerable to a cascade of adverse reproductive health outcomes. Chief among these are the rapid transmission of sexually transmitted infections (STIs) including HIV, the high incidence of unintended pregnancies, and the subsequent recourse to unsafe, clandestine abortions. Beyond the immediate physical health threats, these clinical outcomes are inextricably linked to severe psycho-social and academic consequences. Students facing these challenges often endure deep-seated social stigma, psychological distress, anxiety, and premature academic dropout, all of which collectively derail their educational trajectories and future socio-economic potential.

Although previous studies have examined aspects of student sexual behavior, the social landscape has shifted dramatically. This rapidly evolving social environment propelled by ubiquitous smartphone access, the proliferation of social media, digital dating applications, and the normalization of modern hook-up culture has fundamentally reshaped students' interpersonal dynamics, expectations, and sexual practices. Currently, there is a lack of up-to-date, comprehensive data linking these attitudes to the prevalence of risky sexual behaviors across multiple tertiary institutions in Edo State, highlighting a critical gap in knowledge necessary for effective intervention planning. This study, therefore, seeks to fill this gap by providing a current assessment of the knowledge, attitudes, prevalence, and influencing factors of risky sexual behaviors among undergraduates in Edo State, providing the evidence base needed for targeted, school-based interventions.

1.3 JUSTIFICATION FOR THE STUDY

This study is necessitated by the pressing need to tackle the increasing reproductive health challenges facing young people in Edo State. Although previous studies have been done, and numerous public health initiatives put in place, several factors underscore the importance of conducting this particular research at the present time:

Addressing the Knowledge–Practice Gap

A key rationale for this study is the well-documented knowledge–practice gap among students in tertiary institutions. Previous research have shown that been aware of safe sex practices is not a guarantee that students will use them consistently. This study is therefore warranted, as it aims to go beyond assessing mere knowledge and instead explore the underlying attitudes and psycho-social factors that hinder students from translating their knowledge into safe sexual practices.

Responding to Evolving Social Realities

Student life in Edo State has undergone significant changes due to the emergence of digital “hook-up” cultures and the growing prevalence of off-campus “campus-gate” hostels. The increased privacy offered by off-campus accommodations creates more opportunities for engagement in risky sexual behaviors. This study is therefore warranted, as it offers a contemporary evaluation of how modern influences, such as social media and substance use, shape risky sexual practices within Edo State’s tertiary institutions.

Reducing the Public Health Burden

Risky sexual behaviors are major contributors to the spread of STIs, HIV, and unintended pregnancies among undergraduate students. Unintended pregnancies, in particular, can result in academic interruptions, student dropouts, and the potentially life-threatening consequences of unsafe abortions. By examining the factors that drive these behaviors, this study aims to provide evidence that can protect both the health and academic prospects of the student population.

Policy and Intervention Development

The results of this study will provide valuable guidance for: School administrators to establish campus-specific reproductive health services and counseling programs that address students' shortcomings in regards to safe sex practices, Government and Public Health planners to design targeted, peer-led intervention initiatives instead of relying on generic awareness campaigns that have previously shown limited effectiveness, future researchers to offer an updated baseline of data for Edo State, facilitating longitudinal studies and comparisons in the years ahead.

1.4 RESEARCH QUESTIONS

1. What is the level of knowledge about risky sexual behaviour among undergraduate students in tertiary institutions in Edo State?
2. What are the attitudes of undergraduate students in Edo State tertiary institutions towards risky sexual behavioural practices?
3. What is the prevalence of risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State?
4. What are the factors influencing risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State?

1.5 RESEARCH OBJECTIVES

GENERAL OBJECTIVE

This study aims to assess risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State for the purpose of improving reproductive health behaviour among undergraduate students.

SPECIFIC OBJECTIVES

1. To assess the level of knowledge of risky sexual behavioural practices amongst undergraduate students in tertiary institutions in Edo State.
2. To ascertain the attitude of undergraduate students in Edo State tertiary institutions towards risky sexual behavioural practices
3. The determine the prevalence of risky sexual behavioural practices amongst undergraduate students in Edo State tertiary institutions.
4. To identify factors influencing risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State.

CHAPTER TWO

LITERATURE REVIEW

2.1 BACKGROUND

This chapter reviews relevant literature on the knowledge, attitudes, prevalence, and predictors of risky sexual behaviour (RSB) among undergraduate students. The review examines the transition of youths from adolescence to young adulthood, highlighting the growing public health importance of addressing sexual health practices to mitigate the spread of sexually transmitted infections (STIs), HIV/AIDS, and unintended pregnancies among tertiary institution students.[12] The transition to university life represents a critical period of vulnerability as students experience newfound autonomy, largely away from the direct supervision of parents and guardians.[13]

In Sub-Saharan Africa, the impact of risky sexual behaviors is especially pronounced. In Nigeria, the high occurrence of these behaviors is shaped by the distinctive socio-cultural and economic context of tertiary institutions, which often serve as "risk environments" where peer pressure, curiosity, and the desire for social recognition frequently outweigh considerations for personal health.[12,14] The continued occurrence of these behaviors in tertiary institutions indicates that existing interventions may be insufficient in addressing the core attitudinal and socio-economic factors influencing students.

The knowledge and attitude of undergraduate students toward sexual health are important determinants of their actual sexual practices. However, evidence from studies conducted across Nigeria, including institutions in Edo State, highlights concerning patterns where high awareness does not automatically translate to safe practices.[15] For instance, while general awareness of HIV/AIDS and contraception is often high among students, a significant proportion of sexually active undergraduates still report inconsistent or complete non-use of condoms.[14,15] This evidences a profound knowledge–practice gap, indicating that the mere cognitive acquisition of scientific knowledge does not necessarily translate into sustained safer sexual behaviors.[14]

Consequently, the determinants of risky sexual behaviors are complex and interrelated. Psycho-social factors, including peer influence, financial constraints leading to transactional sex, and substance abuse, have been shown to significantly contribute to higher engagement in risky practices.[12,16] Moreover, contextual influences, particularly the transition to the largely unregulated environment of off-campus accommodations, further increase the risk of multiple sexual relationships and substance-related sexual activities.[13]

Theoretical models, including the Health Belief Model, the Theory of Planned Behavior, Social Cognitive Theory, and the Information-Motivation-Behavioral Skills Model, are reviewed in this chapter because they provide useful explanations for how cognitive beliefs and social norms shape sexual intentions and actual behaviour among young adults.

Furthermore, this chapter reviews empirical studies carried out on this topic globally, within Africa, and within Nigeria to provide a foundation for assessing the knowledge of and attitude towards RSB, understanding the factors influencing these behaviours, as well as to identify existing gaps in the literature.

2.1.1 Evaluation of instruments in use in the literature

Several instruments and theoretical frameworks have been developed to assess young adults' knowledge, attitudes, and prevalence of risky sexual behaviour in public health research. These tools are critical in evaluating the extent to which university students understand sexual health risks and the frequency with which they engage in protective versus risky practices.

Among the commonly used instruments is the Youth Risk Behavior Surveillance System (YRBSS) developed by the Centers for Disease Control and Prevention (CDC).[17] The YRBSS is a widely validated framework designed to monitor priority health-risk behaviors, prominently including sexual behaviors that contribute to unintended pregnancy and STIs. Additionally, the World Health Organization (WHO) Illustrative Questionnaire for Interview-Surveys with Young People is frequently adapted in literature to assess foundational reproductive health knowledge.[18]

Furthermore, task-specific attitude scales, such as the Sexual Risk Behaviour Beliefs and Self-Efficacy Scales, are frequently utilized to evaluate individuals' beliefs regarding the benefits or disadvantages of condom use and their perceived ability to negotiate safe sex.[19] To measure actual behavioural outcomes, structured survey instruments assess respondents' engagement in specific risky acts, including age at sexual debut, concurrent multiple sexual partnerships, and sexual activity under the influence of alcohol or drugs.[19]

These instruments are highly regarded in the epidemiological community, having undergone extensive validation. Their widespread application in sexual health research supports their appropriateness for measuring the knowledge, attitudes, and behavioural outcomes related to risky sexual practices among undergraduate students.

2.2 THEORETICAL FRAMEWORK

Four major theories provide the structural foundation for understanding the psychological and social drivers of risky sexual behavior among undergraduates.

2.2.1 The Health Belief Model (HBM)

The Health Belief Model is a social–psychological framework designed to explain and predict health-related behaviors, particularly individuals' use of health services. It was developed in the 1950s by social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal while working with the U.S. Public Health Service. The model is commonly used to anticipate how individuals make decisions about their health and the likelihood that they will adopt recommended health behaviors. the HBM posits that health-related behavior depends on the student's perception of a health threat.[20]

i. **Perceived Susceptibility:** A student is more likely to use protection if they believe they could actually contract an STI.[20]
ii. **Perceived Severity:** The belief that an STI would have serious consequences on their life and education would motivate a student to adopt protective measures.[20]
iii. **Perceived Benefits vs. Barriers:** The student weighs the safety of condom use against barriers like cost, embarrassment, or diminished sensation.[20]

iv. **Self Efficacy:** This relates to the student's ability to strictly adhere to safe sex practices.[20]

v. **Cues to Action:** Factors that trigger the behavior, such as a campus health awareness campaign or a peer's diagnosis.[20]

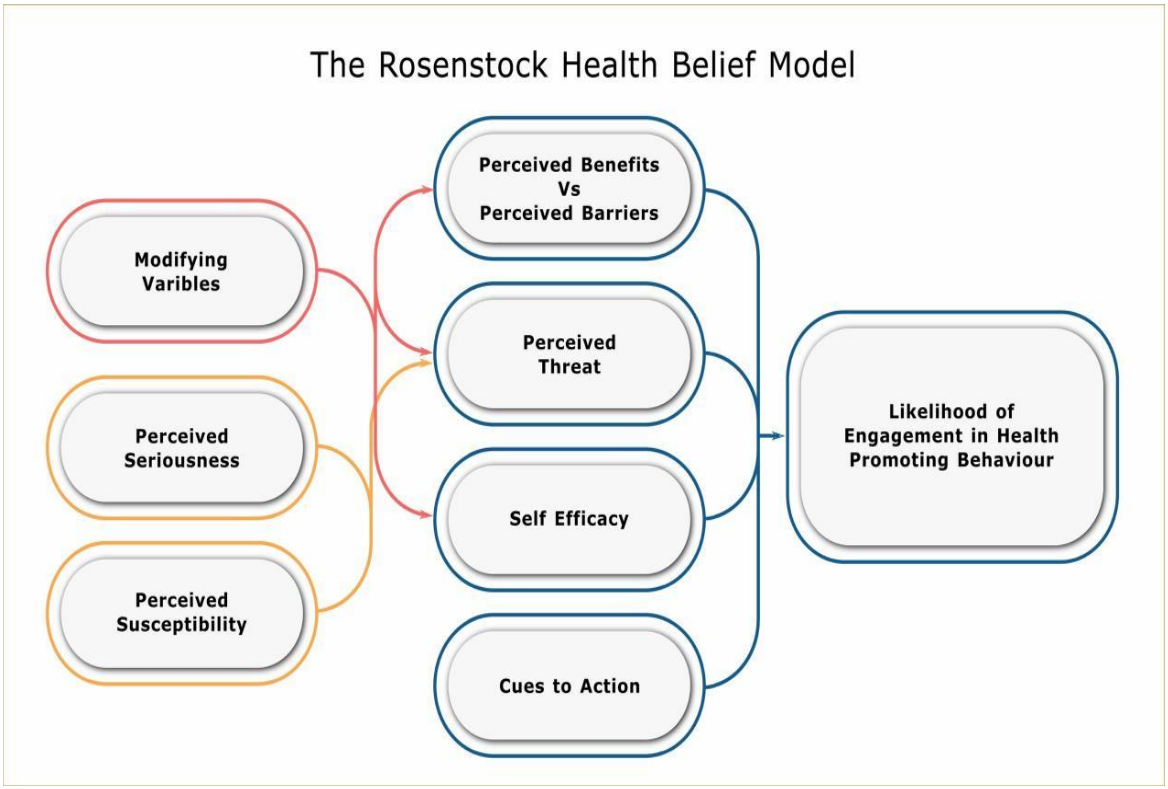

Figure 1: Diagramatic representation of the Health Belief Model

2.2.2 The Theory of Planned Behavior (TPB)

This theory proposed by Ajzen in 1991 argues that the most immediate predictor of behavior is Behavioral Intention.[21] This intention is determined by three variables:

i. **Attitude toward the Behavior:** The student's positive or negative attitude toward safe sex.[21]

ii. **Subjective Norms:** The perceived social pressure from peers and "campus culture" to engage in or avoid risky sex highlight that peer influence is one of the strongest predictors of RSB in Nigerian universities.[21]

iii. **Perceived Behavioral Control:** The student's perception of their ability to insist on safe sex, even when pressured by a partner.[21]

2.2.3 Social Cognitive Theory (SCT)

This theory emphasizes triadic reciprocal determinism, the idea that behavior is influenced by the interaction between personal factors, the environment, and the behavior itself.[22]

i. **Self-Efficacy:** This is the core of SCT. It refers to a student's confidence in their ability to perform a specific action, such as negotiating condom use or refusing unwanted sexual advances.[22]

ii. **Observational Learning:** Students often model their sexual behaviors based on the perceived success or popularity of peers who engage in similar behaviors.[22]

2.2.4 The Information-Motivation-Behavioral Skills (IMB) Model

Fisher and Fisher, in 1992, developed and tailored this model specifically for the purpose of understanding and promoting healthful sexual behaviour. It suggests that three components must work together for a student to practice safe sex:[23]

i. **Information:** Direct, usable knowledge about how to prevent infection.[23]

ii. **Motivation:** The desire to act on that information, influenced by personal attitudes, social support, and perceived benefits.[23]

iii. **Behavioral Skills:** The practical skill set needed, such as knowing how to use a condom correctly and having the communication skills to discuss it with a partner.[23]

2.2.5 Application of Theoretical Frameworks to the Study Objectives

The theoretical frameworks discussed, namely the Health Belief Model (HBM), Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), and the Information-Motivation-Behavioral Skills (IMB) Model, do not operate in isolation. Rather, they collectively inform the structural design of this research and provide the psychological and environmental context necessary for interpreting the study's specific objectives: assessing the knowledge, attitudes, prevalence, and predictors of risky sexual behaviour (RSB) among undergraduates.

Application to Knowledge The assessment of students' baseline knowledge is heavily grounded in the Information-Motivation-Behavioral Skills (IMB) model. According to this model, accurate, biologically sound information is the primary prerequisite for initiating protective sexual behaviours.[23] In the context of this study, measuring knowledge involves determining if students possess the correct information regarding STI transmission, emergency contraception, and the definition of RSB. However, as the HBM and IMB model both postulate, knowledge alone is often insufficient to trigger behavioral change without corresponding motivation and perceived susceptibility.[20,24] This theoretical assumption justifies why this study does not stop at measuring knowledge but extends into attitudes and actual practices.

Application to Attitudes The evaluation of students' attitudes toward RSB is primarily underpinned by the Theory of Planned Behavior (TPB) and the Health Belief Model (HBM).[20,21] The TPB dictates that an individual's behavioral intention is shaped by their attitude toward the act and subjective norms.[21] When measuring attitudes, such as beliefs that having multiple partners is normal or condoms reduce sexual pleasure, this study directly evaluates the TPB’s subjective norms and "attitudes toward the behavior." Similarly, the HBM explains attitude through the constructs of perceived severity and perceived benefits.[23] If a student believes that STIs are a severe threat (perceived severity) and that condoms effectively prevent them (perceived benefits), they are theoretically more likely to hold a protective attitude. Measuring these attitudes allows the researcher to understand the cognitive barriers preventing safe sex.

Application to Prevalence and Practices When assessing the actual prevalence of RSB (e.g., condomless sex, concurrent partnerships), the study utilizes Social Cognitive Theory (SCT). SCT emphasizes the concept of reciprocal determinism, which posits that human behavior is the result of continuous interactions between personal, behavioral, and environmental influences.[22] The university environment, characterized by a sudden reduction of parental supervision and a high degree of peer interaction, serves as the environmental catalyst in this model. By measuring the lifetime and recent prevalence of these acts, the study quantifies the ultimate behavioral outcome predicted by the environmental shifts described in SCT.[22]

Application to Predictors and Influencing Factors Identifying the socio-demographic and psycho-social predictors of RSB relies on the synthesis of all these frameworks. For example, the TPB’s concept of perceived behavioral control directly translates to a student's self-efficacy in negotiating condom use with a partner.[21] Furthermore, financial constraints leading to transactional sex or living off-campus (environmental factors) may override positive attitudes and adequate knowledge. By systematically applying these integrated theories, the study can accurately interpret why certain factors, such as age, sex, faculty of study, and financial allowance, may serve as significant independent predictors of risky sexual practices.

2.3 CONCEPTUAL FRAMEWORK

The conceptual framework operationalizes the core variables of this study, providing a structured understanding of how they are defined, measured, and interrelated within the specific research context. For this study, the conceptual framework revolves around defining risky sexual behaviour (RSB), delineating the dimensions of sexual health knowledge and attitudes, and identifying the socio-demographic predictors that influence these outcomes among undergraduate students.

2.3.1 Concept of Risky Sexual Behaviour (RSB)

In public health discourse, risky sexual behaviour (RSB) is broadly conceptualized as any sexual practice that increases an individual's susceptibility to adverse sexual and reproductive health outcomes, primarily sexually transmitted infections (STIs), HIV/AIDS, and unintended pregnancies.[5] Within the context of this study and broader epidemiological research, RSB is not viewed as a single act, but rather as a spectrum of behavioural typologies.

Drawing from the Centers for Disease Control and Prevention (CDC) youth risk guidelines, this study operationalizes RSB into specific measurable acts.[25],[26] These include:

Condomless Sex: Engaging in vaginal, oral, or anal intercourse without the consistent and correct use of barrier protection.[25,26]

Concurrent Multiple Partnerships: Having more than one active sexual partner within a specified timeframe, which exponentially increases exposure to sexual networks, and increases the risk of adverse health outcomes.[25,26]

Substance-Involved Sexual Intercourse: Engaging in sexual activity under the influence of alcohol or illicit drugs, which physiologically and psychologically impairs judgment and condom negotiation skills.[25,26]

Transactional Sex: The exchange of sexual favour for financial gain, material gifts, or academic advantages (e.g, sex for grades), a practice heavily influenced by the socio-economic pressures of campus life.[25,26]

Early Sexual Debut: Initiation of sexual intercourse prior to the age of 18, which is historically correlated with a higher lifetime accumulation of sexual partners and reduced protective efficacy.[3]

In the university setting, these behaviours are increasingly normalized by modern campus dynamics, making their explicit definition critical for targeted intervention.

2.3.2 Concept of Sexual Health Knowledge

Knowledge in the context of reproductive health transcends the mere recognition of diseases like HIV/AIDS. Operationally, sexual health knowledge refers to a student's cognitive grasp of biological facts, transmission mechanics, and mitigation strategies required to navigate sexual relationships safely.[14]

In this study, knowledge is conceptualized across several practical domains. Differentiating between superficial awareness and deep, functional knowledge is vital, as superficial awareness is often insufficient to disrupt risky behavioural patterns.

2.3.3 Concept of Attitudes towards Risky Sexual Behaviour

Attitude represents a complex psychological construct defined as an individual's internal, emotional, and cognitive evaluation, either favourable or unfavourable, regarding a specific behaviour or social phenomenon. Within the context of adolescent and youth reproductive health, attitude functions as the critical mediating variable between cognitive awareness and behavioural execution. It effectively answers the epidemiological question of why the knowledge-practice gap exists; a student may possess comprehensive theoretical knowledge regarding sexual risks, but their ultimate behavioural choice is heavily dictated by their underlying attitudes toward that risk.[27]

In this study, the concept of attitude towards Risky Sexual Behaviour (RSB) is operationalized across three primary psychological dimensions:

Risk Perception and Optimistic Bias: This dimension evaluates a student's attitude toward their own personal vulnerability. According to the Health Belief Model, a dangerous attitudinal deficit occurs when students develop an optimistic bias, a psychological state where they acknowledge that STIs and unintended pregnancies are real threats to the general campus population, but hold the subjective attitude that they are personally immune.[20] When the attitude of perceived severity is low, the likelihood of engaging in unprotected sex or concurrent partnerships increases significantly.[20]

Attitudes Toward Barrier Negotiation and Trust: This dimension examines the emotional biases students hold regarding preventative measures, specifically condoms. In many campus relationships, attitudes toward condom utilization transcend physical protection and enter the realm of emotional evaluation. If a student holds the internalized attitude that requesting a condom implies infidelity, suspicion, or a lack of commitment to their partner, the protective behaviour is frequently abandoned to preserve relationship harmony.[28] Furthermore, negative attitudes regarding the reduction of sexual pleasure severely inhibit consistent barrier use.[28]

Attitudes Toward the Commodification of Sex (Transactional Sex): A highly critical dimension within the Nigerian tertiary ecosystem involves attitudes toward the economic utility of sexual intercourse. This assesses the extent to which students have normalized or developed positive attitudes toward transactional sex. When campus culture fosters an attitude that utilizing sex for financial maintenance, lifestyle enhancement, or academic survival is a legitimate and socially acceptable coping mechanism, the threshold for engaging in high-risk sexual behaviour is drastically lowered.[28]

Consequently, assessing these multifaceted attitudes is paramount. Understanding these underlying emotional and cognitive evaluations provides the necessary framework to explain why undergraduates within Edo State may persistently engage in RSB despite possessing adequate baseline reproductive health literacy.

2.3.4 Concept of Predictors and Influencing Factors

Predictors are the independent variables, that statistically drive the likelihood of a student engaging in RSB. They comprise socio-demographic, economic, and environmental factors Conceptualizing these factors is essential for understanding the university ecosystem.

Key predictors explored in this framework include environmental factors, such as living arrangements (with off-campus living frequently correlating with higher RSB due to the absence of institutional curfew and parental oversight), economic factors such as financial status/allowance (where economic vulnerability may conceptualize transactional sex as a survival or status-maintenance strategy).[12] Additionally, academic variables such as faculty of study and level of study, alongside demographic factors like age and sex, serve as critical conceptual lenses to determine which specific sub-populations within the university are most vulnerable to risky sexual practices.

Cognitive and psychological factors may also influence engagement in risky sexual behaviour amongst undergradute students. This is where knowledge and attitude towards RSB comes in. While baseline reproductive health literacy (knowing how STIs are transmitted or how contraceptives function) is a necessary prerequisite for safe sex, knowledge alone is an insufficient deterrent. Recent empirical evidence indicates that a vast majority of undergraduates possess high cognitive awareness of sexual risks, yet actively continue to engage in RSB.[12] This disconnect occurs because knowledge is heavily mediated by psychological evaluation. Attitude serves as the critical psychological bridge that determines whether theoretical knowledge is actually converted into protective behaviour. If a student holds a negative attitude towards condoms (e.g., believing they reduce pleasure or imply a lack of trust within a relationship), or if they possess an optimistic bias towards the potential effects of RSB (such as the attitude that they are personally immune to STIs despite acknowledging the general risk), their baseline knowledge is effectively overridden.[27]

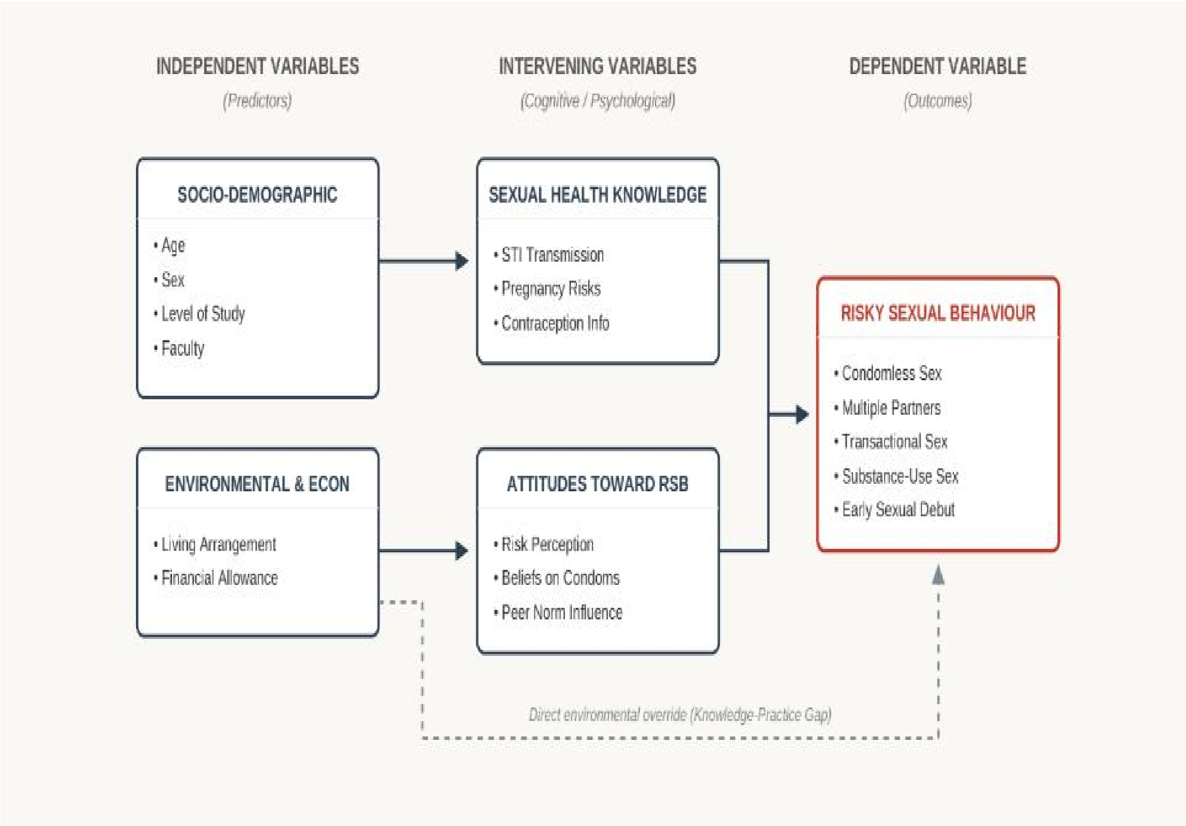

Figure 2: Diagramatic representation of conceptual framework

2.4 POLICY FRAMEWORK

The governance of adolescent and youth sexual reproductive health (AYSRH) is guided by a hierarchy of international, national, and institutional policies. These frameworks provide the legal, ethical, and strategic mandates required to implement public health interventions, promote sexual health autonomy, and mitigate the prevalence of risky sexual behaviour (RSB) among vulnerable populations, such as undergraduate students.

2.4.1 International Policy Frameworks

At the global level, the approach to mitigating RSB is heavily anchored in the United Nations Sustainable Development Goals (SDGs), specifically Goal 3 (Ensure healthy lives and promote well-being for all at all ages) and Goal 5 (Achieve gender equality and empower all women and girls).[29] SDG target 3.7 explicitly mandates universal access to sexual and reproductive healthcare services, including family planning, information, and education, by 2030.[29]

Complementing the SDGs is the World Health Organization's (WHO) Global Strategy for Women's, Children's and Adolescents' Health (2016–2030).[30] This strategy emphasizes the right of adolescents and young adults to access youth-friendly health services without facing discrimination, stigma, or financial hardship. Furthermore, the UNAIDS 95-95-95 targets serve as a critical international framework aimed at ending the HIV epidemic—a primary consequence of RSB. This framework underscores the urgent need for robust preventative strategies, such as consistent condom programming and pre-exposure prophylaxis (PrEP) awareness, specifically targeting high-risk youth demographics.[31]

2.4.2 National Policy Frameworks

In Nigeria, international directives are domesticated through several key national policies designed to address the unique socio-cultural realities of the country. The most prominent of these is the National Policy on the Health and Development of Adolescents and Young People in Nigeria, formulated by the Federal Ministry of Health (FMoH).[32] This policy officially recognizes youth as a highly vulnerable demographic and mandates the establishment of Youth-Friendly Health Services (YFHS) across primary and tertiary healthcare centers. It prioritizes confidentiality, peer-education, and the provision of barrier contraceptives to mitigate unintended pregnancies and STIs.[32]

To address the educational deficit contributing to the practice of RSB, the Nigerian government also introduced the National Family Life and HIV Education (FLHE) Curriculum.[33] This educational policy aims to provide foundational, age-appropriate sexual health information before students reach tertiary institutions. However, literature indicates that the implementation of the FLHE varies significantly across states and often faces resistance due to cultural and religious sensitivities, meaning many students arrive at university with inadequate sexual health literacy.[33]

Additionally, the National HIV and AIDS Strategic Framework, coordinated by the National Agency for the Control of AIDS (NACA), provides specific guidelines for targeting key and vulnerable populations, which increasingly includes the youth and university demographics due to the high prevalence of concurrent sexual partnerships and transactional sex.[34]

2.4.3 State and Institutional Context (Edo State & Tertiary Institutions)

At the sub-national level, state ministries of health, including the Edo State Ministry of Health, are tasked with integrating these national frameworks into state-level healthcare delivery. For university populations, these policies intersect directly with institutional mandates.

Tertiary institutions are governed by policies issued by the National Universities Commission (NUC) and internal university Senates. While universities typically lack standalone sexual behaviour policies, they enforce Student Codes of Conduct and Anti-Sexual Harassment Policies (which directly address sexual coercion and transactional sex for grades, both critical components of RSB).[35] Furthermore, university medical centers are mandated by the national youth-friendly health policies to provide non-judgmental sexual health counseling and STI screening.[36] However, the continued high prevalence of RSB on campuses suggests a significant implementation gap; institutional policies often remain heavily focused on punitive measures regarding sexual harassment rather than proactive, comprehensive reproductive health promotion.[35]

Understanding these policies is critical for this study, as the findings will help determine the efficacy of their implementation, and help with the necessary recommendations where necessary.

2.5 EMPIRICAL REVIEW

Here is an empirical review of curated international, regional and local literature and research work on the topic for the purpose of carrying out this study on the foundation of existing literature.

2.5.1 Knowledge of Risky Sexual Behavioural Practices

In 2019, a study was conducted in a university in Northern Portugal, with a sample size of 840 students to assess their knowledge and attitude towards risky sexual behaviour.[10] The study used a scoring system to assess the level of knowledge of risky sexual behaviour, with zero points being awarded for every wrong answer, and each correct answer awarded one point. The students were then asked questions on risky sexual behaviour, with their final score being the sum of the points from each correct answer. Using this scoring system, which varied between zero and six correct answers, the average score of the students was 3.99, which was deemed to be moderate by the study.[10] However, while this study provides a foundational understanding of cognitive awareness, it presents significant geographical and methodological gaps. The six-point evaluation scale used to assess knowledge by the study is arguably too narrow to capture the comprehensive, multi-dimensional nature of sexual health literacy. Finally, the socio-cultural and economic realities of university students in Northern Portugal differ vastly from those in Sub-Saharan Africa. Consequently, these findings cannot be readily generalized to the Nigerian context.[10]

In 2021, a descriptive cross-sectional study was conducted among 918 undergraduate students at a university in Pretoria, South Africa, to assess their baseline knowledge of sexual health risks and its relationship with risky sexual behaviours.[4] To evaluate cognitive awareness, the researchers utilized a quantitative knowledge scoring system. Alarmingly, the findings revealed that more than half of the undergraduate respondents (55.9%) possessed poor knowledge regarding STI transmission and symptoms, recording an overall mean knowledge score of just 2.9 (± 2.0 SD).[4] While this South African study provides valuable empirical evidence on the knowledge of risky sexual behaviour among undergraduates, it presents significant contextual and methodological gaps when applied to the broader Nigerian ecosystem. Primarily, the study was conducted exclusively within a Health Sciences university setting. Evaluating the baseline knowledge of medical and health science students, who possess specialized academic exposure to biology and pathology, does not accurately reflect the sexual health literacy of a general university population comprising arts, engineering, and humanities students.[4]

A 2018 study conducted among 360 undergraduate students of Jimma Teacher Training College, Jimma Town, Ethiopa assessed the knowledge of the students on RSBs.[37] The participants were deemed to have good knowledge of RSBs if they correctly answered over 60% of the questions on RSBs.[37] The majority of study participants (59.1%) knew about RSBs. However, 140 (38.9%) students had poor knowledge about RSBs while 220 (61.1%) had good knowledge about RSBs.[38] While this Ethiopian study provides a useful baseline metric for cognitive awareness, its demographic focus and restricted scope present critical limitations. The study population is limited exclusively to a Teacher Training College. Students in specialized pedagogical institutions often operate under different institutional regulations and curricula compared to those in large, multi-faculty universities. Consequently, their knowledge levels and exposure to broader campus social dynamics may not accurately reflect a general undergraduate population.[37]

In a descriptive cross-sectional study conducted in 2026 among 400 undergraduate students at Osun State University, Osogbo, Nigeria, researchers evaluated the baseline knowledge of risky sexual behaviours (RSB) and their consequences.[12] Utilizing a structured questionnaire, the study found that a vast majority of the respondents (87.8%) possessed a high level of general knowledge regarding what constitutes risky sexual behaviours, identifying consequences such as sexually transmitted infections (STIs) and unintended pregnancies.[12] While this study provides highly contemporary data on the cognitive awareness of Nigerian undergraduates, its geographical setting presents a notable limitation. Osun State is located in the South-Western geopolitical zone, an area heavily influenced by distinct socio-cultural norms, religious demographics, and regional public health campaigns. The avenues through which students acquire sexual health knowledge, and the cultural taboos surrounding the discussion of sex, vary significantly between the South-West and the South-South region where Edo State is located.[12]

In a cross-sectional study conducted among 317 students at the Federal College of Education (Technical) in Gombe State, Nigeria, researchers assessed the baseline knowledge and practice of sexual risk behaviours.[38] Utilizing a structured questionnaire, the study revealed a significant deficit in cognitive awareness among the student population. The findings indicated that nearly two-thirds (64.2%) of the respondents possessed poor knowledge regarding sexual risk behaviours and their consequences. Furthermore, the study established that socio-demographic and academic variables, specifically age, sex, faculty, and level of study, were significantly associated with the students' level of sexual health knowledge ($p < 0.05$).[38] While this study provides valuable empirical data on the knowledge deficits among Nigerian tertiary students, its geographic location presents notable limitations. Gombe State is situated in the North-Eastern geopolitical zone of Nigeria. This region is governed by distinctly different religious, cultural, and socio-economic dynamics compared to the more liberalized, cosmopolitan environments typical of the South-South region where Edo State is located. Cultural taboos regarding sexual health discussions in the North-East heavily restrict information access, which likely skewed the knowledge scores downward.[38]

2.5.2 Attitude Towards Risky Sexual Behavioural Practices

A cross-sectional survey was conducted in 2019 among 800 university students in Iran to ascertain their attitudes towards risky sexual behaviour[39]. The students were given a self-administered, 24-item questionnaire adapted from the World Health Organisation (WHO). The result of the study showed that both the male and female students had negative attitudes towards risky sexual behaviour.[39] While this study utilizes a validated international instrument, its findings are heavily constrained by the extreme socio-cultural and legal contexts of Iran's Islamic prejudice, rendering them largely inapplicable to the Nigerian university ecosystem.[39]

In a recent 2025 cross-sectional study conducted among 967 undergraduate students in the Southern United States, researchers examined the complex relationship between sexual attitudes, knowledge, and risky sexual behaviour (RSB).[27] Utilizing the Student Sexual Risk Scale (SSRS) and the Sexual Double Standard Scale (SDSS), the study revealed nuanced gender differences in their attitudes towards RSB. For female students, more liberal sexual attitudes and higher baseline knowledge were associated with a negative attitude toward engaging in RSB.[27] Conversely, among male students, higher sexual knowledge actually correlated with positive attitudes toward RSB when those students also held strong beliefs in sexual double standards (e.g., the belief that sexual exploration is acceptable for men but not for women). The study concluded that students' attitudes toward sexual risk-taking are heavily moderated by entrenched regional cultural scripts and conservative religiosity.[27]

In a 2021 cross-sectional study conducted among 918 undergraduate students at a university in Pretoria, South Africa, researchers assessed students' attitudes and risk perceptions regarding risky sexual behaviours (RSB).[4] The findings revealed a concerning attitudinal disconnect; a significant proportion (85.8%) of students who engaged in high-risk activities, such as concurrent multiple partnerships and transactional sex, exhibited a poor attitude towards their own vulnerability, incorrectly perceiving themselves to be at low risk of acquiring STIs. Furthermore, the study highlighted that students held negative or avoidant attitudes towards negotiating safe sex and disclosing sexual health status to partners, preferring anonymous or physician-led notifications instead.[4] This study however focuses heavily on post-exposure attitudes (such as STI partner notification preferences) and does not fully capture the broader spectrum of proactive attitudes towards RSB.[4]

In 2021, a descriptive Cross-sectional study was conducted among 280 randomly selected year one and year two Medical and Nursing undergraduate students at two tertiary institutions in Rivers State, Nigeria, using a questionnaire adapted from WHO survey instrument to obtain data on knowledge of and attitude towards RSBs.[40] The study revealed that in general, the respondents agreed that the most suitable method of protection among young people was abstinence.[40] The respondents generally disagreed that condom use is only required with commercial sex workers.[40] The respondents also disagreed that condoms effectively protected one against HIV and other STIs.[40]

A qualitative study was carried out in 2020 via a focus group discussion comprising of 16 purposefully selected Medical and Nursing students across two tertiary institutions in Rivers State to assess the students' attitude towards risky sexual behaviour[6]. Majority (3/4) of the participants had a negative attitude towards RSBs[6]. Many of the participants agreed that many students, themselves included, have indulged in RSBs at one time or another despite their awareness of the risks involved for reasons such as thrill and excitement, impatience to wait for marriage[6].

2.5.3 Prevalence of Risky Sexual Behavioural Practices

A descriptive cross-sectional study conducted in 2015 among 819 university students studying health related courses in Brasil found that there was a significant gender gap when it came to the use of protective barriers during sexual intercourse[41]. The study found that only 19.29% of sexually active females used a condom during every sexual activity.[41] However, this value was much lower in males, with only 3.9% reporting having used a condom during every sexual activity. Only 14.4% of the women reported having used a condom during their last sexual intercourse. The study also found that the mean age of sexual debut in the population was 16.66 years.[41] Although an informative study, the study population is exclusively restricted to students studying health-related courses. Undergraduates in medical and health sciences possess specialized, clinical exposure to pathology and disease prevention, which inherently biases their behavioural risk profiles compared to a standard, multi-faculty campus population.[41]

A 2016 descriptive cross-sectional study conducted amongst 700 university students in Malaysia assessed the prevalence of risky sexual behaviour among the students. According to the study, 20% of the students were sexually active.[42] For these sexually active students, less than half (41.0%) of them used a condom the last time they had sex. The majority (66.7%) of the sexually active students have had multiple sexual partners in the past 12 months. Moreover, 18.0% of them had sex with commercial sex workers, while, 17.4% and 5.8% of them took alcohol and injected drugs before having sex, respectively.[42] While this study provides detailed insights into the specific RSB typologies, Malaysia's highly conservative socio-religious framework as well as the reported 20.0% baseline of sexual activity is highly indicative of profound social desirability bias, where students systematically underreport their sexual histories out of fear of institutional reprimand.[42]

In 2018, a descriptive cross-sectional study was conducted amongst 918 students in a health sciences university in South Africa and the study found that half (50.5%) of the students were sexually active within the last 12 months leading to the survey.[4] Of the sexually active students, 28.6% had multiple sexual partners within the same time period, with a higher proportion of males (46%) reporting having multiple sexual partners. About 5.6% of the males had sex with commercial sex workers.[4] About 39.3% of the sexually active students reported not using condoms regularly.[4]

A descriptive cross-sectional study was done in 2020 amongst 504 students in higher learning institutions in Mbeya, Tanzania to determine the prevalence of RSBs among the students.[2] The study found that 88.5% of the students had ever had sex with the mean age of sexual debut being 18.4 years and 9.9% having a sexual debut age ≤ 15 years. Lack of condom use at sexual debut was reported by 52% of the participants.[2] Consistent condom use during the past 4-weeks was reported at 33% and 16.5% among males and females, respectively. About 10% of the students reported forced sex by someone they were dating. Sex under the influence of alcohol was reported by 24% of the students.[2] While this Tanzanian study provides robust, contemporary prevalence data regarding specific high-risk typologies such as coercion and substance-involved sex, it notably omits the prevalence of transactional sex, a pervasive, economically driven phenomenon which is important to the scope of my study.[2]

In a 2026 descriptive cross-sectional study conducted among 400 undergraduate students at Osun State University in South-Western Nigeria, Tijani et al. assessed the prevalence and associated factors of risky sexual behaviours (RSB).[12] While the study reported that only 32.0% of the campus population admitted to being sexually experienced, the prevalence of risk-taking within that sexually active cohort was alarmingly high.[12] Specifically, 82.0% of the sexually active respondents reported engaging in RSB, which included unprotected sexual intercourse, multiple concurrent partnerships, and early sexual debuts. Furthermore, the study identified that 100% of the students who engaged in RSB due to financial issues (transactional sex) or substance influence practiced unsafe sex, highlighting the severe economic and environmental drivers of high-risk campus prevalence.[12] While this 2026 study provides highly contemporary prevalence data regarding Nigerian undergraduates, its findings present significant regional and methodological gaps. Students in the South-Western geopolitical zone, which is heavily influenced by specific conservative and religious cultural scripts, frequently underreport their sexual histories on self-administered surveys.

A descriptive cross-sectional study carried out in 2019 among 550 university students across two universities in Osun State, Nigeria determined the prevalence of RSB among the students.[43] According to the study, 48.3% of the respondents were sexually experienced, with the mean age of sexual debut being 18.11 years.[43] Less than one-third of the respondents (28.6%) had more than one sexual partner at the time of the study.[43] Among the sexually experienced, 51.9% used condom during their last sexual intercourse, and 46.2% of sexually active respondents reported consistent condom use.[43] About 13.2% said they had ever forcefully had sex with anyone and 14.35% stated someone had forcefully had sex with them.[43]

2.5.4 Factors Affecting Risky Sexual Behavioural Practices

A descriptive cross-sectional study was carried out in 2019 amongst 235 undergraduate students to identify risky sexual behaviors and associated factors at a university in Barranquilla, Colombia.[44] The study showed that factors like gender had a significant influence of the practice of RSB, as males had a higher risk score.[44] The study also found that sexual orientation was an influential factor in the practice of RSBs as homosexuals had a significantly higher risk score.[44] The study also found that students who had an age of sexual debut earlier than 15 years of age had a significantly higher chance of engaging in RSB, hence identifying age of sexual debut as a factor influencing the practice of RSBs.[44] While this Colombian study effectively isolates demographic and historical predictors of RSB, its geographic, legal, and socio-economic contexts severely limit its applicability to the Nigerian university ecosystem. Firstly, the predictive weighting of sexual orientation cannot be seamlessly applied to Nigeria. Due to the strict legal framework (specifically the Same-Sex Marriage Prohibition Act) and intense socio-cultural stigma in Nigeria, non-heterosexual orientations are highly marginalized, making them exceptionally difficult to measure accurately on campus surveys without severe underreporting.[44]

In a recent 2023 cross-sectional study conducted among 361 undergraduate students residing in university hostels within Kathmandu Metropolitan City, Nepal, researchers investigated the specific predictors and factors associated with risky sexual behaviour (RSB).[45] The study found a high overall prevalence, with 64.3% of the undergraduates reporting engagement in RSB.[45] Utilizing a multivariable logistic regression model, the researchers identified several significant independent predictors. Biologically and demographically, higher age (AOR = 3.93) and male gender (AOR = 3.23) were strongly associated with an increased likelihood of engaging in RSB. Furthermore, family background played a significant predictive role, as students with lower maternal education (AOR = 3.65) demonstrated significantly higher risk scores. Interestingly, while peer pressure was a strong predictor in initial bivariate analysis, its significance weakened considerably when adjusted for other demographic variables.[45] While this contemporary Asian study effectively utilizes multivariate regression to isolate specific demographic and familial predictors of RSB, certain methodological gaps severely limit its generalizability to the Nigerian tertiary ecosystem.The study population was exclusively restricted to students residing within institutional hostels. By completely excluding off-campus students, the predictive model fails to account for the severe behavioural impact of living arrangements.[45]

A cross-sectional study was conducted in February 2017 among 427 college students at the University of Zambia to assess their engagement in RSB and the influencing factors.[46] The study found that participants who were older, engaged in less physical activity, reported having liberal sexual attitudes were more likely to engage risky sexual behaviour. Factors like frequent alcohol use, previous suicide attempts correlated strongly strongly with engagement in risky sexual behaviour.[46]

An institution-based cross-sectional study was conducted in 2019 amongst 420 students of the University of Gondar, Ethiopa to assess the determinants of risky sexual behaviour.[47] The study found that students over the age of 24 were 2.12 times more likely to engage in risky sexual behaviour compared to those aged 24 and below.[47] The study also found that participants who regularly took alcohol were 9.19 times more likely to engage in risky sexual behaviour than those who didn’t. Students who lived without family members or were not controlled by family members were 9.79 times more likely to engage in risky sexual behaviour compared to those who lived with family.[47] The study also found that religiously dedicated students were 43% less likely to engage in risky sexual behaviour.[47] Positively, the study confirms the severe impact of autonomous living arrangements, a finding highly relevant to the off-campus student dynamic in Edo State. It does however fail to properly account for financial and economic variables that influence risky sexual behaviour.[47]

To identify the factors associated with RSB among university undergraduates in Osun state, a descriptive cross-sectional study was conducted in 2019 amongst 550 respondents from two universities in Osun state.[43] The study found that 266 respondents were sexually experienced, and were further analyzed.[43] The study found that 76.8% of those who took alcohol regularly had engaged in RSB as compared with those who did not (63%).[43] The study also found that a higher percentage (82.7%) of those who watched porn regularly engaged in RSB than those who did not watch porn (61.7%).[43] While the study does highlight imporant factors influencing risky sexual behaviour, it focuses heavily personal lifestyle choices, and less on the structural environmental and economic pressures of campus life.[43]

In a 2022 descriptive cross-sectional study conducted among 301 undergraduate students at Adeleke University in Osun State, Nigeria, Ayorinde assessed the factors influencing risky sexual behaviour (RSB).[11] The findings indicated a high baseline of sexual activity, with 56.8% of the respondents having engaged in sexual intercourse. Crucially, the study highlighted socio-environmental and economic pressures as primary drivers, concluding that peer pressure and the pursuit of economic gains were the most significant structural factors influencing risky sexual practices.[11] While this contemporary Nigerian study provides highly relevant data, specifically validating the role of economic pressure in driving transactional sex, its institutional framework presents a severe epidemiological limitation. Adeleke University is a private, faith-based institution governed by exceptionally strict moral codes, mandatory religious observances, and rigorous campus surveillance. The socio-environmental realities, peer dynamics, and disciplinary consequences at a private religious university are fundamentally different from the highly autonomous, secular, and liberalized environments of public tertiary institutions, Hence this study should have included a public university as well.[11]

CHAPTER THREE

METHODOLOGY

3.1 STUDY AREA

This study was carried out among undergraduate students of the University of Benin, Benin- City. Edo state is among the 36 states that make up Nigeria. Its capital city is Benin-City. It is located in the South-South geopolitical zone of Nigeria. Edo state has a land mass of about 19,743 square kilometers and it is bounded by Delta state in the south, Ondo state in the west, Kogi state in the north and Anambra state in the east. Edo state was first established as the Mid-Western Region in 1963, it was later renamed Bendel in 1976 and it was finally divided into Edo and Delta states on August 27th, 1991. Edo state consists of the major ethnic groups Bini, Esan, Afemai, Owan, Etsako and Akoko Edo as well as different tribes who reside in the state.[48] The state has seven (7) universities (one federal university, two state universities and four privately owned universities).[48]

Benin city is metropolitan city and it is bounded by latitudes 6^0 06’ N, 6^0 30’ N and longitudes 5^0 30’ E, 5^0 45’ E of the Greenwich meridian. It occupies a land area of 500^2 Km, situated 200 miles by road East of Lagos, and 25 miles north of the Benin river. It has a population of 1,086,882 as at the 2006 census and a population projection of 1,737,788 in 2025. The city is comprised of 3 major local governments out of the eighteen local government areas of Edo state namely; Oredo, Egor, Ikpoba-Okha Local government areas. The Indigenous ethnic group is Benin and their language is Bini. The major business of the city includes transportation and petty trading, however, there are two brewing factories, a petroleum storage depot, an oil pipeline, a battery assembling factory, four small scale pharmaceutical production factories, etc. Some of Nigeria's institutions of higher learning are located in Benin-City namely; the University of Benin, Federal College of Education Technical, Benson Idahosa University, Wellspring University, Igbinedion University and Bells University of Technology.[48,49]

The University of Benin is a government owned tertiary institution of education and it was founded November 23rd in 1970. It started as an institute of technology and was made a full-fledged University by National University Commission on 1st July, 1971. The University is officially accredited and recognized by the National Universities Commission, Nigeria. The University of Benin operates across two distinct campuses: the Ugbowo campus and the Ekenwan campus. The institution is currently led by Professor Edoba Bright Omoregie (SAN), who assumed office as the 11th Vice Chancellor in December 2024, succeeding Professor Lilian I. Salami. The University offers courses at various levels: postgraduate, undergraduate, and diploma.[50]

It has approximately 60,000 students spread across 2 campuses at Ekehuan and Ugbowo made up of both full-time and part-time students; and 4,000 – 4,499 academic staff. The university has 21 faculties, which include, Agriculture, Arts, Basic Medical Sciences, Computing, Dentistry, Education, Engineering, Environmental Sciences, Law, Life Sciences, Management Sciences, Media and Communication Studies, Medicine, Nursing Sciences, Optometry, Pharmacy, Physical Sciences, Science Laboratory Technology, Social Sciences, Veterinary Medicine, Vocational and Technical Education. It also has a college, The College of Medical Sciences which is composed of the Schools of Medicine, Dentistry, Basic Medical Sciences, Nursing Sciences and the Institute of Child Health.[50]

Benson Idahosa University (BIU) is a private, Christian university located in Ugbor, Benin City. Established in 1993 as Christian Faith University-Institute of Continuous Learning, it was later renamed in 1998 in honor of Archbishop Benson Idahosa, a prominent Pentecostal minister.[51] The university received its operating license from the National Universities Commission (NUC) in 2002. BIU is known for integrating academic excellence with Christian values, and it maintains a reputation for strong discipline, sports performance, and leadership development.[51]

BIU has an estimated enrollment of approximately 5,000 students. The university offers courses across multiple faculties, including Arts and Education, Basic and Applied Sciences, Law, Social and Management Sciences, Agriculture, Engineering, and a college of Medicine. The main campus, located in Ugbor, is characterized by a well-maintained environment, modern lecture halls, libraries, research centres, and recreational facilities.[51]

3.2 STUDY DESIGN

An analytical cross-sectional study design was adopted for this study.

3.3 STUDY DURATION

This study was conducted from December 2024 to May 2026.

3.4. STUDY POPULATION

The study was carried out among undergraduate students in the University of Benin, Ugbowo Campus and Benson Idahosa University, Benin City, Edo State.

3.5 SELECTION CRITERIA

3.5.1 Inclusion Criteria

1. The selection criteria included persons enrolled as full-time undergraduate students in all faculties in the University of Benin and Benson Idahosa University, that consented to the study.

3.5.2 Exclusion Criteria

1. Students with health conditions or disabilities that may have impaired their ability to complete the questionnaire or whose participation would have placed undue strain on their well being.
2. Students who declined to participate in the study.
3. Those not present during the survey.

3.6 SAMPLE SIZE DETERMINATION

The minimum sample size (n) was calculated using the Cochran's formula used for descriptive studies.[52]

$$n = \frac{Z^2 pq}{d^2}$$

Where,

n = minimum sample size

Z = standard normal deviate = 1.96 at 95% confidence interval

p = prevalence of the characteristic of interest

q = 1 - p

d = degree of precision desired set at 0.05

p was set at 82%, which was the prevalence of risky sexual behaviour based on a cross-sectional study carried out in Osun State, Nigeria to assess prevalence of risky sexual behaviour among undergraduate students.[12]

p = 0.82

q = 1 p = 1-0.385 = 0.18

d = Degree of precision set at 0.05 Confidence interval

Hence:

$$n = \frac{(1.96)^2 \times (0.82) \times (0.18)}{(0.05)^2}$$

n= 227

Using a design effect of 2.0 to account for multistage sampling.

$n_{adj} = 227 \times 2 = 454$

To account for non-response, 10% non-response rate was added to the minimum sample size, utilizing the formula for non-response rate.

$$nf = \frac{n}{1 - nr}$$

n = Minimum sample size = 454

nr = non-response rate = 10% = 0.10

nf = Final minimum sample size

$n_f = 454 / 0.9 = 505$

3.7 SAMPLING TECHNIQUE

A multi-stage sampling technique was used to select participants, ensuring proper representation across campuses, faculties, and departments.

Stage 1: Selection of Institutions

The study was conducted in two institutions: University of Benin Ugbowo Campus, and Benson Idahosa University (BIU). These universities were selected to capture a mix of public and private institutions, providing a broader perspective on risky sexual behaviours. Wellspring university was excluded for this study, as the university mandates on-campus accommodation for undergraduate students which may limit the data collection.

Stage 2: Selection of Campuses

University of Benin has two campuses: Ekemwan campus and Ugbowo campus. The Ugbowo campus was selected using simple random sampling by balloting.

Benson Idahosa University has two campuses: The Heritage Campus at Ugbor, and the Legacy Campus along Benin-Sapele Road. The Heritage Campus was selected using simple random sampling by balloting.

Stage 3: Selection of Faculties

A list of the 21 faculties on the Ugbowo campus was obtained from the Central Records Processing Unit Division of the University. Eight faculties were chosen by simple random sampling through balloting. The faculties selected from University of Benin include: Arts, Basic Medical Sciences, Education, Engineering, Science Laboratory Technology, Law, Management Sciences, Medicine, Pharmacy.

A list of the 7 faculties present at Benson Idahosa University was obtained from the Central Records Processing Unit Division. Four faculties were chosen by simple random sampling through balloting. The faculties selected from Benson Idahosa

University include: Engineering, Faculties of Arts and Education, Faculty of Sciences, and, Law.

Stage 4: Selection of Departments

Within each of the eight chosen faculties from UNIBEN, one department was selected from each using simple random sampling by balloting. The departments selected from University of Benin include: Civil Engineering, Entrepreneurship, Guidance and Counseling, International Studies and Diplomacy, Law, Medicine, Physiotherapy, Pharmacy.

Within each of the four faculties chosen from BIU, one department was selected from each using simple random sampling by balloting. The four departments chosen from BIU include: Civil Engineering, Computer Science, English Studies, and Law

Stage 5: Selection of Respondents

The sample size was distributed by proportionate allocation, based on the estimated number of students per university from veritable sources.[53,54]

UNIBEN Ugbowo campus undergraduate (full-time) : 43,446 students

BIU Undergraduate: 4618 students

Sample size per university was determined using the proportionate allocation formula:

Allocated sample size= $\frac{Population\ per\ campus}{Total\ Population}$ x Total sample size

Table 1: Proportionate allocation for sample size

Campus	Estimated Population	Proportion	Allocated Sample Size (Proportion×605)
UNIBEN Ugbowo	43,446	0.904	0.904× 505 = 454
BIU	4,618	0.096	0.096× 505 = 49
Total	**48,064**	**1.000**	505

The proportional allocation yielded 454 students for UNIBEN Ugbowo, and 49 for Benson Idahosa University.

Systematic random sampling was then applied. Student lists were obtained from departmental records, a sampling interval (*k*) was calculated, and respondents were selected accordingly.

3.8 DATA MANAGEMENT

3.8.1 Tools for Data Collection

Data was collected using a structured, self-administered questionnaire adapted from validated instruments. The knowledge section was adapted from the WHO Illustrative Questionnaire for Interview-Surveys with Young People and the Youth Risk Behavior Survey (YRBS).[17,18] Attitudes toward risky sexual behaviour was assessed using domains from the Sexual Risk Behaviour Beliefs and Self-Efficacy Scales[19], while prevalence of risky sexual behavioural practices was assessed using items adapted from the Sexual Risk Survey.[55]

The instrument was designed to assess knowledge, attitudes, prevalence, and factors influencing risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State. The questionnaire consisted mainly of closed-ended questions, with a limited number of Likert-scale items included to quantify attitudes and perceived influences on risky sexual behaviour.

All the instruments used in the development of the questionnaire are highly regarded in the academic community, having undergone extensive validation and reliability testing. Their widespread application in sexual health research supports their appropriateness for measuring knowledge, attitudes, and behavioural outcomes related to risky sexual practices among undergraduate students.[17,18,19,55]

3.8.2 Sections of the Questionnaire

The questionnaire comprised five main sections, structured to address the study objectives:

Section A: Socio-demographic Characteristics

This section collected information on age, sex, institution, level of study, marital status, religion, place of residence, and monthly allowance.

Section B: Knowledge of Risky Sexual Behavioural Practices

This section assessed respondents' understanding of risky sexual behaviour, including definitions, modes of risk exposure, and consequences. Questions consist of both single-best-answer items and multiple response questions to properly assess the respondents' knowledge.

Section C: Attitudes Toward Risky Sexual Behavioural Practices

This section assessed the respondents' beliefs, perceptions, and acceptance of risky sexual practices using a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree.

Section D: Prevalence of Risky Sexual Behavioural Practices

This section assessed respondents' engagement in specific risky sexual behaviours, including age at sexual debut, types of sexual intercourse had, multiple sexual partnerships, condom use, sexual activity under the influence of alcohol or drugs, transactional sex, and coerced sexual experiences.

Section E: Factors Influencing Risky Sexual Behavioural Practices

This section explored individual, social, and environmental factors influencing risky sexual behaviour, including peer pressure, substance use, financial constraints, living arrangements, media exposure, emotional stress, and availability of institutional training on sexual health. Items were structured as yes/no questions to facilitate analysis.

3.8.3 Method of Data Collection

Data collection was conducted over a four-week period from the 5^{th} to 31^{st} of March, 2026. Questionnaires were administered within the university campuses in settings that ensured privacy and confidentiality. Respondents were provided with a clear explanation of the study objectives, and informed consent was obtained prior to participation. Participation was voluntary, and respondents were assured that all information provided would remain anonymous and confidential.

3.8.4 Pretesting

A pretest was conducted among 10% (n = 51) of the final sample size at Ambrose Ali University . The pretesting process was done to assess the clarity, flow, and cultural appropriateness of the questionnaire. Feedback obtained from the pretest was used to refine ambiguous items and improve the overall reliability and acceptability of the instrument.

3.8.5 Research Assistants

Research assistants were adequately trained prior to data collection to ensure consistency and accuracy in the administration of questionnaires. The training focused on the objectives of the study, proper explanation of questionnaire items, ethical considerations such as obtaining informed consent, and maintaining confidentiality. They were also instructed on how to approach respondents respectfully and avoid influencing their responses. This helped to ensure standardization in data collection and improve the reliability of the study findings

3.9 Data Analysis

Data analysis was conducted using IBM SPSS version 27. The data analysis process included:

Descriptive statistics, including frequencies, percentages, means, and standard deviations, to summarize socio-demographic characteristics and questionnaire responses.

Inferential statistics, including chi-square tests and logistic regression analysis, to assess associations between socio-demographic variables, knowledge, attitudes, and prevalence of risky sexual behavioural practices. A p-value of less than 0.05 was considered statistically significant

SCORING SYSTEM

Knowledge of Risky Sexual Behavioural Practices

The knowledge of risky sexual behavioural practices was calculated into a percentage of the maximum obtainable score and this was done as follows: A total of 34 variables, across 10 questions (Questions 13–22), consisting of single best option (Questions 13, 17, 18, 19, 20, 21, 22) and multiple response questions (Questions 14, 15, 16) was used to assess respondents' knowledge of risky sexual behavioural practices. For the single best option questions, each correct option was scored 1 point, while each incorrect option was scored 0 point. For the multiple response questions, selecting a correct option earned the respondent 1 point for each correct option selected, failure to select a wrong option also attracted a score of 1 point, per wrong option not selected, while selecting a wrong option or failing to select a correct option was deemed a wrong answer and earned the respondent 0 points. The total knowledge score was added up and expressed as a percentage of the maximum score that could be earned in the knowledge section (34 points). This percentage was then converted into the participant's level of knowledge as follows:

- **0%–69.9%:** Poor knowledge
- **70%–100%:** Good knowledge[56]

Attitude Toward Risky Sexual Behavioural Practices

Respondents' attitudes toward risky sexual behavioural practices was assessed using nine (9) questions (Questions 24, 23, 26, 28, 30, 31, 32, 33, 34) on a 5-point Likert scale: Strongly agree = 4, Agree = 3, Neutral = 2, Disagree = 1, Strongly disagree = 0. Negatively worded items were reverse-scored. The total attitude score was then computed and converted into a percentage of the maximum obtainable score and interpreted as follows:

- **0%–69.9%:** Positive attitude
- **70%–100%:** Negative attitude[56]

Prevalence of Risky Sexual Behavioural Practices

Prevalence of risky sexual behavioural practices was assessed using Section D (Questions 35–43). Lifetime sexual experience was determined using Question 35, the types of sexual intercourse had was assessed using Question 36, while age at sexual debut was assessed using Question 37, with debut before 18 years classified as early sexual debut. Lifetime engagement in risky sexual behaviours, including casual sex, transactional sex, overlapping sexual partnerships, coerced sex, and sex under the influence of alcohol or drugs, was assessed using Question 38.

Recent prevalence (past 12 months) was assessed using Questions 39–43. Question 40 determined the number of sexual partners in the last 12 months. Condom use patterns were assessed using Questions 41 and 42, with any response other than "never" indicating inconsistent condom use. Engagement in risky sexual behaviours within the last 12 months was assessed using Question 43.

Each risky sexual behaviour was analysed independently and presented using frequencies and percentages. Respondents who reported at least one risky sexual behaviour will be classified as having engaged in risky sexual behaviour. This behaviour-specific approach to measuring lifetime and recent prevalence is consistent with methods commonly used in studies of risky sexual behaviour among adolescents and young adults.[55,57]

Factors Influencing Risky Sexual Behavioural Practices

Factors influencing risky sexual behavioural practices was assessed using yes/no questions. These factors were not scored independently but were analysed for their frequency and their association with the prevalence of risky sexual behavioural practices using inferential statistical methods.

3.10 DATA PRESENTATION

The results obtained from the study was presented using frequency distribution tables, contingency tables, charts, and prose. These methods helped to clearly showcase the distribution of responses, the relationships between variables, and the overall trends observed in the data.

3.11 ETHICAL CONSIDERATION

Ethical approval and clearance to carry out this research was obtained from the ethics committee of University of Benin Teaching Hospital with protocol number: **ADM/E 22/A/VOL. VII/14865491272105**. Informed consent was obtained from the participants before administering the questionnaire and participant confidentiality and anonymity was ensured. All participant information obtained during the study was treated as confidential and would not be reproduced or used for any other purpose outside the scope of this research The findings from this study could help identify lapses in reproductive health practices which could become areas of focus in future health education campaigns.

3.12 STUDY LIMITATION

The study relied on self-reports, which could introduce recall and information bias. Given the sensitivity of the subject, some respondents could withhold or misrepresent information. There was also the tendency for some of the respondents to have a social desirability bias when providing responses.

CHAPTER FOUR

RESULTS

Two universities in Edo State were visited to carry out this study, consisting of one public (University of Benin) and one private (Benson Idahosa University) university. A total of 635 students participated in this study with a 100% response rate. The results are presented in sections below in line with research specific objectives:

Section A: Socio-demographic data of respondents.

Section B: Knowledge of risky sexual behaviour amongst respondents.

Section C: Attitudes of respondents towards risky sexual behaviour.

Section D: Prevalence of risky sexual behaviour amongst respondents

Section E: Perceived factors influencing risky sexual behaviour

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE UNDERGRADUATE STUDENTS

Table 2: Socio-demographic characteristics of the respondents

Variables	Frequency (n = 635)	Percent
Age (in years)		
≤ 18	164	25.8
19 - 24	415	65.4
≥ 25	56	8.8
Mean = 20.39 ± 2.71		
Sex		
Female	293	46.1
Male	342	53.9
Institution		
BIU	64	10.1
UNIBEN	571	89.9
Level of study		
100	120	18.9
200	138	21.7
300	123	19.4
400	154	24.3
500	48	7.6
600	52	8.2
Faculty Type		
Health related	402	63.3
Non-health related	233	36.7
Department		
Civil Engineering	62	9.8
Computer Science	22	3.5
English Studies	18	2.8
Entrepreneurship	34	5.4
Guidance and Counseling	28	4.4
International Studies and Diplomacy	33	5.2
Law	36	5.7
Medicine	176	27.7
Pharmacy	80	12.6
Physiotherapy	78	12.3
Science Laboratory Technology	68	10.7
Religion		
Christianity	623	98.1
Islam	12	1.9
Place of residence during school session		
Off campus	277	43.6
On campus	358	56.4
Average monthly allowance		
≤ ₦50,000	331	52.1
> ₦50,000	304	47.9

A total of 635 students participated in the study. The socio-demographic distribution of the respondents (Table 1) reveals that the majority fell within the 19–24 years age bracket (65.4%), followed by those aged 18 years and below (25.8%), while respondents aged 25 and older constituted the smallest age demographic (8.8%). There was a slightly higher proportion of male respondents (53.9%) compared to female respondents (46.1%).

The vast majority of the respondents were drawn from the University of Benin (UNIBEN), accounting for 89.9% of the sample, with Benson Idahosa University (BIU) accounting for the remaining 10.1%. When categorized by discipline, nearly two-thirds of the respondents (63.3%) were enrolled in health-related faculties, while 36.7% belonged to non-health-related faculties. the most common department was Medicine (27.7%), followed by Pharmacy (12.6%) and Physiotherapy (12.3%). The respondents were distributed across all academic levels, with the highest participation from 400-level students (24.3%) and 200-level students (21.7%), and the lowest from 500-level (7.6%) and 600-level (8.2%) students.

Regarding socioeconomic and environmental factors, the respondents were relatively evenly split by their financial allowance, with 52.1% receiving a monthly allowance of ₦50,000 or less, and 47.9% receiving more than ₦50,000. In terms of living arrangements, slightly over half of the respondents resided on campus (56.4%), while 43.6% lived off campus. The study population was predominantly Christian (98.1%), with a small proportion practicing Islam (1.9%)

SECTION B

KNOWLEDGE OF RISKY SEXUAL BEHAVIOUR AMONGST UNDERGRADUATE STUDENTS

Table 3: Awareness of risky sexual behaviour amongst undergraduate students

Variables	Frequency	Percent
Heard of "risky sexual behaviour" (n = 635)		
Yes	468	73.7
No	167	26.3
Main source of information (n = 468)		
Social Media	340	72.6
Internet	267	57.1
School lectures	196	41.9
Friends	174	37.2
Health workers	146	31.2
Television	83	17.7
Journals	51	10.9
Radio	45	9.6

** Multiple response question*

Nearly three-quarters of the respondents (73.7%) reported having heard of risky sexual behaviour (RSB), while 26.3% had not. Among those aware of RSB, the vast majority identified social media (72.6%) and the internet (57.1%) as their primary sources of information. A notable proportion also obtained information from school lectures (41.9%), friends (37.2%), and health workers (31.2%).

Table 4: Knowledge responses of undergraduate students on risky sexual behaviour

Variables	Frequency (n = 468)	Percent
Risky sexual behaviour is best described as:		
Sexual practices that increase the risk of adverse sexual and reproductive health outcomes	404	86.3
Any sexual activity among young people	32	6.8
Sexual activity outside of marriage only	24	5.1
Sexual activity for pleasure only	8	1.7
Recognized forms of risky sexual behaviour*		
Unprotected sex	418	89.3
Multiple partners	396	84.6
Under the influence of alcohol/drugs	324	69.2
Anal sex	276	59
Coerced sex	234	50
Early sexual initiation	212	45.3
Transactional sex	208	44.4
Oral sex	196	41.9
Consistent condom use	42	9
Mutual monogamy	38	8.1
Abstinence	6	1.3
Possible effects of risky sexual behaviour*		
Sexually transmitted infections	448	95.7
Unintended pregnancy	396	84.6
HIV	392	83.8
Psychological effects	304	65
Infertility	212	45.3
Improved relationships	8	1.7
Strengthened immunity	6	1.3
Strategies to mitigate the effects of risky sexual behaviour*		
Regular screening	352	75.2
Limiting the number of sexual partners	333	71.2
Consistent condom use	323	69
Health education	311	66.5
Prompt treatment	298	63.7
Emergency contraception	54	11.5
Ignoring symptoms until they resolve	44	9.4
Avoiding discussion of sexual health with partners	42	9
Unprotected sexual intercourse increases the risk of STIs because it:		
Allows direct exchange of body fluids	436	93.2
Happens outside marriage	14	3
Occurs mainly among young people	14	3
Reduces emotional bonding	4	0.9
Correct and consistent condom use reduces sexual health risks by:		
Preventing contact with infectious body fluids	438	93.6
Delaying sexual initiation	17	3.6
Improving fertility	11	2.4
Increasing sexual pleasure	2	0.4
Alcohol or drug use before sex increases sexual risk mainly because it:		
Impairs judgement and decision-making	366	78.2
Increases physical strength	56	12
Delays orgasm	40	8.5
Improves communication	6	1.3
Having more than one sexual partner increases sexual health risk due to:		
Increased exposure to infections	448	95.7
Emotional attachment	10	2.1
Improved trust	8	1.7
Longer relationship duration	2	0.4
Emergency contraception:		
Prevents pregnancy but not sexually transmitted infections	386	82.5
Prevents both pregnancy and infections	46	9.8
Is effective against all STIs	24	5.1
Should replace condom use	12	2.6
A person with an STI may have no symptoms because:		
Some infections can be asymptomatic	440	94
Symptoms appear immediately after sex	12	2.6
Symptoms only occur in older adults	10	2.1
Symptoms only occur in women	6	1.3

** Multiple response question,* $\alpha = 0.949$

A descriptive analysis was conducted to evaluate the specific domains of knowledge regarding risky sexual behaviour (RSB) among the respondents (n = 468). Overall, the student population demonstrated an accurate, biologically grounded understanding of sexual health, transmission mechanisms, and mitigation strategies.

The vast majority of students (86.3%) correctly defined RSB as practices that increase the risk of adverse sexual and reproductive health outcomes, avoiding moralistic or age-based misconceptions. When identifying specific forms of RSB, respondents showed near-universal recognition of unprotected sex (89.3%) and having multiple partners (84.6%). However, recognition dropped significantly for behavioral and socio-economic risks, with only 50.0% identifying coerced sex and 44.4% recognizing transactional sex as forms of RSB.

The students exhibited high biological literacy regarding how risks are contracted and prevented. The majority correctly identified that unprotected sex increases risk via the direct exchange of body fluids (93.2%) and that condoms mitigate this risk by preventing that exact contact (93.6%). Furthermore, the epidemiological concept of asymptomatic transmission was widely understood, with 94.0% correctly noting that a person with an STI may exhibit no symptoms. Similarly, 95.7% accurately attributed the danger of multiple partners to increased exposure to infections rather than psychosocial factors.

Respondents were highly aware of the consequences of RSB, correctly identifying STIs (95.7%), unintended pregnancies (84.6%), and HIV (83.8%) as primary effects. Interestingly, almost two-thirds (65.0%) also recognized the psychological impacts of RSB. When assessing mitigation strategies, clinical approaches such as regular screening (75.2%) were heavily favored over behavioral strategies like consistent condom use (69.0%).

While baseline knowledge was excellent, minor but critical gaps remained. Nearly 15% of the study population harbored dangerous misconceptions regarding emergency contraception, incorrectly believing it prevents infections (9.8%) or is effective against all STIs (5.1%). Additionally, while 78.2% correctly understood that alcohol and drugs increase sexual risk by impairing judgment, over 20% attributed this risk to incorrect physical factors such as increased strength or delayed orgasm.

Table 5: Correctness of Knowledge responses on risky sexual behaviour

Variable	Knowledge Response (n = 468) Correct Response (%	Incorrect Response (%)
Risky sexual behaviour is best described as...		
Sexual practices that increase the risk of adverse sexual and reproductive health outcomes	404 (86.3)	64 (13.7)
Unprotected sex increases the risk of STIs because...		
Allows direct exchange of body fluids	436 (93.2)	32 (6.8)
Correct and consistent condom use reduces risks by...		
Preventing contact with infectious body fluids	438 (93.6)	30 (6.4)
Alcohol/drug use before sex increases risk because...		
Impairs judgement and decision-making	366 (78.2)	102 (21.8)
More than one sexual partner increases risk due to...		
Increased exposure to infections	448 (95.7)	20 (4.3)
Emergency contraception...		
Prevents pregnancy but not sexually transmitted infections	386 (82.5)	82 (17.5)
A person with an STI may have no symptoms because...		
Some infections can be asymptomatic	440 (94.0)	28 (6.0)
Recognized forms of risky sexual behaviour*		
Unprotected sex	418 (89.3)	50 (10.7)
Multiple partners	396 (84.6)	72 (15.4)
Under the influence of alcohol/drugs	324 (69.2)	144 (30.8)
Anal sex	276 (59.0)	192 (41.0)
Coerced sex	234 (50.0)	234 (50.0)
Early sexual initiation	212 (45.3)	256 (54.7)
Transactional sex	208 (44.4)	260 (55.6)
Oral sex	196 (41.9)	272 (58.1)
Consistent condom use	426 (91.0)	42 (9.0)
Mutual monogamy	430 (91.9)	38 (8.1)
Abstinence	462 (98.7)	6 (1.3)
Possible effects of risky sexual behaviour*		
Sexually transmitted infections	448 (95.7)	20 (4.3)
Unintended pregnancy	396 (84.6)	72 (15.4)
HIV	392 (83.8)	76 (16.2)
Psychological effects	304 (65.0)	164 (35.0)
Infertility	212 (45.3)	256 (54.7)
Improved relationships	460 (98.3)	8 (1.7)
Strengthened immunity	462 (98.7)	6 (1.3)
Strategies to mitigate the effects of RSB*		
Regular screening	352 (75.2)	116 (24.8)
Limiting the number of partners	333 (71.2)	135 (28.8)
Consistent condom use	323 (69.0)	145 (31.0)
Health education	311 (66.5)	157 (33.5)
Prompt treatment	298 (63.7)	170 (36.3)
Emergency contraception	414(88.5)	54(11.5)
Ignoring symptoms until they resolve	424 (90.6)	44 (9.4)
Avoiding discussion of sexual health with partners	426 (91.0)	42 (9.0)

** Multiple response question   α= 0.949*

A comprehensive binary evaluation of the knowledge questions was conducted to assess the accuracy of respondents' understanding of risky sexual behaviour (RSB). For multiple-response items, correctness was evaluated based on the accurate identification of valid facts and the active rejection of misconceptions.

The results highlight a high level of correct knowledge on risky sexual behaviour across general domains. Awareness of exposure mechanics was particularly strong; 95.7% of respondents correctly identified that multiple partners increase exposure to infections, and 94.0% correctly understood the asymptomatic nature of some STIs. Furthermore, the barrier protection offered by condoms (93.6%) and the fluid-exchange risk of unprotected sex (93.2%) were highly understood.

When evaluating specific forms of RSB, knowledge was strongest regarding primary physical risks such as unprotected sex (89.3%) and having multiple partners (84.6%). However, a substantial proportion of respondents demonstrated incorrect knowledge (failing to identify the risk) regarding less discussed forms of RSB, including oral sex (58.1% incorrect), transactional sex (55.6% incorrect), and early sexual initiation (54.7% incorrect). Encouragingly, respondents demonstrated an excellent ability to reject misconceptions; for example, 98.7% correctly rejected the idea that abstinence is a form of RSB, and 91.0% correctly rejected consistent condom use as an RSB.

Regarding the consequences of RSB, accuracy was highest for physical health outcomes: STIs (95.7%), unintended pregnancies (84.6%), and HIV (83.8%). However, more than half of the respondents (54.7%) incorrectly failed to recognize infertility as a potential consequence. In terms of mitigation strategies, knowledge was adequate but highlighted areas for improvement. While regular screening (75.2%) and limiting partners (71.2%) were correctly identified by most, over a third of respondents incorrectly missed prompt treatment (36.3%) and health education (33.5%) as valid mitigation strategies. Finally, majority (90.6% and 91.0%, respectively) correctly rejected dangerous mitigation misconceptions like ignoring the problem or avoiding discussion.

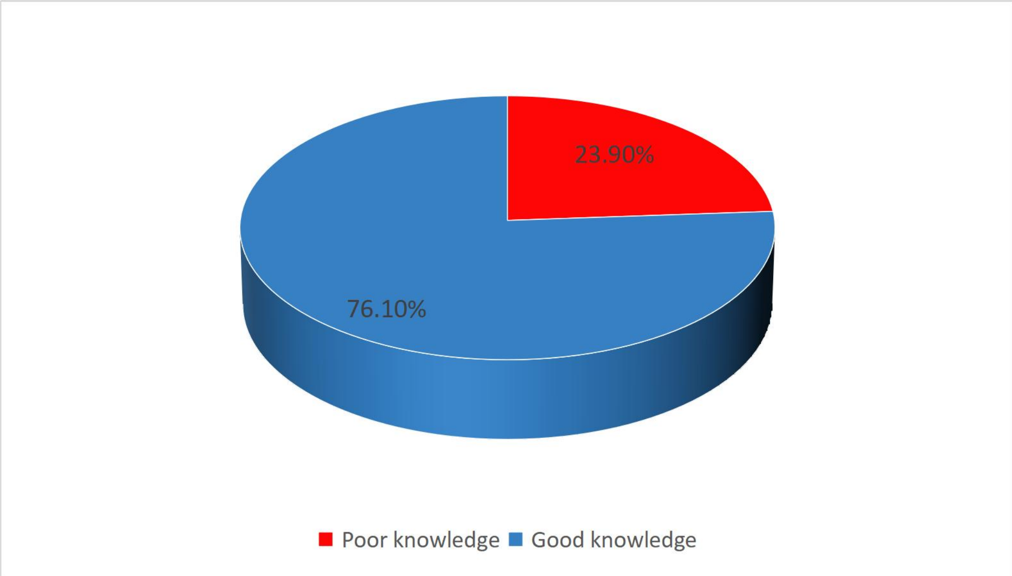

Figure 3: Level of knowledge on risky sexual behaviour amongst the undergraduate students

The results (figure 1) demonstrate that 76.1% (n=356) of the students demonstrated good knowledge regarding risky sexual behaviour Conversely, roughly one-quarter of the respondents (23.9%, n=112) were classified as having Poor knowledge.

Table 6: Factors associated with knowledge of risky sexual behaviour amongst respondents (n = 468)

Variable	Level of Knowledge of RSB		Test statistic (χ^2)	P-value
	Good Knowledge (n = 356) Freq (%)	Poor Knowledge (n = 112)Freq (%)		
Age Group			15.859	**<0.001**
≤ 18	84 (63.6)	48 (36.4)		
19 - 24	240 (80.5)	58 (19.5)		
≥ 25	32 (84.2)	6 (15.8)		
Sex			4.558	**0.033**
Female	181 (80.4)	44 (19.6)		
Male	175 (72.0)	68 (28.0)		
Institution			2.828	0.093
BIU	38 (86.4)	6 (13.6)		
UNIBEN	318 (75.0)	106 (25.0)		
Level of Study			60.512	**<0.001**
100	48 (52.2)	44 (47.8)		
200	74 (66.1)	38 (33.9)		
300	71 (89.9)	8 (10.1)		
400	83 (83.8)	16 (16.2)		
500	36 (90.0)	4 (10.0)		
600	44 (95.7)	2 (4.3)		
Faculty Type			3.739	0.053
Health related	245 (78.8)	66 (21.2)		
Non-health related	111 (70.7)	46 (29.3)		
Religion			7.302*	**0.002**
Christianity	352 (76.9)	106 (23.1)		
Islam	4 (40.0)	6 (60.0)		
Place of Residence			3.175*	0.075
Off campus	144 (72.0)	56 (28.0)		
On campus	212 (79.1)	56 (20.9)		
Average Monthly Allowance			5.727	**0.017**
≤ ₦50,000	170 (71.4)	68 (28.6)		
> ₦50,000	186 (80.9)	44 (19.1)		

** Fisher's Exact Test used*

A cross-tabulation analysis using Pearson's Chi-Square was conducted to determine the socio-demographic factors associated with respondents' knowledge levels regarding risky sexual behaviour. The results indicate that several demographic and academic variables significantly influence sexual health literacy.

Academic progression demonstrated the strongest association with knowledge ($\chi^2 = 60.512$, $p < 0.001$). The proportion of students with good knowledge consistently increased as they advanced in their studies, rising from 52.2% among 100-level students to a peak of 95.7% among final-year (600-level) students. Age followed a similar highly significant trend ($p < 0.001$); older students aged 25 and above exhibited the highest proportion of good knowledge (84.2%), compared to 63.6% among those aged 18 and below.

Sex also yielded a statistically significant difference ($p = 0.033$), with female respondents demonstrating a higher prevalence of good knowledge (80.4%) compared to male respondents (72.0%). Financial status was similarly influential; students receiving a monthly allowance greater than ₦50,000 were significantly more likely to possess good knowledge (80.9%) than those receiving ₦50,000 or less (71.4%, $p = 0.017$). Furthermore, a significant association was observed regarding religion ($p = 0.0015$), with Christian respondents showing a higher proportion of good knowledge (76.9%) compared to Islamic respondents (40.0%), though this should be interpreted cautiously given the small sub-sample size of the latter group.

Conversely, some structural variables did not yield statistically significant differences. While students in health-related faculties (78.8%) scored slightly higher than those in non-health disciplines (70.7%), this difference narrowly missed statistical significance ($p = 0.053$). Similarly, institution of study ($p = 0.093$) and place of residence ($p = 0.075$) did not have a statistically significant impact on the respondents' level of knowledge regarding risky sexual behaviour.

Table 7: Predictors of good knowledge on risky sexual behaviour amongst respondents

Variable	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Age Group			0.197
≤ 18*	1	-	-
19 - 24	1.259	0.684 - 2.315	0.459
≥ 25	0.420	0.108 - 1.623	0.208
Sex			
Female*	1	-	-
Male	0.377	0.222 - 0.641	**<0.001**
Institution			
BIU*	1	-	-
UNIBEN	0.069	0.021 - 0.225	**<0.001**
Level of Study			
100*	1	-	-
200	1.926	1.006 - 3.683	**0.047**
300	16.189	6.379 - 41.059	**<0.001**
400	8.483	3.950 - 18.218	**<0.001**
500	20.131	5.498 - 73.664	**<0.001**
600	25.746	5.536 - 119.648	**<0.001**
Faculty Type			
Non-health related*	1	-	-
Health related	2.614	1.446 - 4.725	**0.001**
Religion*			
Islam*	1	-	-
Christianity	16.967	3.824 - 75.234	**<0.001**
Place of Residence			
On campus	1*	-	-
Off campus	1.204	0.687 - 2.109	0.516
Average Monthly Allowance			
≤ ₦50,000*	1	-	-
> ₦50,000	1.581	0.927 - 2.694	0.093

** Indicates reference category, R^2 = 21.7% - 32.5%, AOR = Adjusted Odds Ratio, CI = Confidence interval*

A backward conditional binary logistic regression was conducted to determine the independent socio-demographic predictors of possessing good knowledge regarding risky sexual behaviour (RSB). The initial model incorporated eight variables: age group, sex, institution, faculty type, level of study, religion, average monthly allowance, and place of residence.

Following stepwise elimination, place of residence and age group were systematically removed from the equation, demonstrating no statistically significant independent predictive value. Average monthly allowance as well did not show any statistically significant predictive value ($p = 0.093$).

The final model revealed five highly significant independent predictors of good health literacy: sex, institution, faculty type, level of study, and religion.

Biological sex served as a strong independent predictor ($p < 0.001$). Male students demonstrated significantly lower odds of possessing good knowledge compared to their female counterparts (AOR = 0.377, 95% CI: 0.222 - 0.641). Additionally, institutional and religious backgrounds heavily influenced knowledge levels. Students attending UNIBEN were significantly less likely to demonstrate good knowledge compared to those at BIU (AOR = 0.069, $p < 0.001$), while students practicing Christianity were nearly 17 times more likely to possess good knowledge compared to the baseline cohort practicing Islam (AOR = 16.967, $p < 0.001$).

Academic exposure demonstrated a profound, compounding effect on a student's health literacy. When compared to the baseline of 100-level students, the odds of possessing good knowledge escalated significantly as students progressed in their studies. By the 600-level, students were nearly 26 times more likely to possess good knowledge compared to freshmen (AOR = 25.746, 95% CI: 5.536 - 119.648, $p < 0.001$). The discipline of study was also a strong predictor; students in health-related faculties were over 2.5 times more likely to possess good knowledge compared to those in non-health disciplines (AOR = 2.614, $p = 0.001$).

SECTION C

ATTITUDE OF UNDERGRADUATE STUDENTS TOWARDS RISKY SEXUAL BEHAVIOUR

Table 8: Attitudinal responses of undergraduate students on risky sexual behaviour

Variables	Attitudinal Responses (n = 635)				
	SA Freq (%)	A Freq (%)	N Freq (%)	D Freq (%)	SD Freq (%)
Having multiple sexual partners is normal among students	38 (6.0)	116 (18.3)	158 (24.9)	116 (18.3)	207 (32.6)
Condoms reduce sexual pleasure, so they are not necessary	25 (3.9)	40 (6.3)	205 (32.3)	192 (30.2)	173 (27.2)
I feel confident negotiating condom use with a partner	82 (12.9)	160 (25.2)	226 (35.6)	91 (14.3)	76 (12.0)
Alcohol/drug use before sex increases the likelihood of unsafe practices	257 (40.5)	204 (32.1)	77 (12.1)	32 (5.0)	65 (10.2)
Students should have easy access to accurate sexual health information and services	376 (59.2)	157 (24.7)	48 (7.6)	14 (2.2)	40 (6.3)
Risky sexual behaviour is a serious health concern among undergraduates	297 (46.8)	228 (35.9)	60 (9.4)	22 (3.5)	28 (4.4)
I can refuse sex when I do not feel ready or safe	372 (58.6)	187 (29.4)	42 (6.6)	14 (2.2)	20 (3.1)
My cultural practices discourage engagement in risky sexual behaviour	257 (40.5)	197 (31.0)	131 (20.6)	25 (3.9)	25 (3.9)
My religious beliefs discourage engagement in risky sexual behaviour	346 (54.5)	173 (27.2)	81 (12.8)	15 (2.4)	20 (3.1)

(SA=Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree)
α= 0.704

Respondents' attitudes toward risky sexual behaviour (RSB) were assessed using a 5-point Likert scale (Table 7). Overall, the respondents demonstrated strong positive attitudes toward recognizing and mitigating sexual health risks, alongside high levels of self-efficacy regarding sexual consent.

A majority of the respondents recognized the gravity of RSB, with 82.7% agreeing or strongly agreeing that it is a serious health concern among undergraduates. Furthermore, 72.6% acknowledged that alcohol or drug use before sex increases the likelihood of unsafe practices. Encouragingly, the student body largely rejected the normalization of multiple sexual partners; over half of the respondents (50.9%) disagreed or strongly disagreed that having multiple partners is normal among students, though a notable 24.9% remained neutral on the subject.

Respondents exhibited high self-efficacy regarding sexual autonomy, with 88.0% affirming they can confidently refuse sex when they do not feel ready or safe. Attitudes toward condom use were generally positive. While 57.4% disagreed with the misconception that condoms are unnecessary because they reduce sexual pleasure (and only 10.2% agreed), confidence in actually negotiating condom use with a partner was mixed. Only 38.1% agreed or strongly agreed they felt confident negotiating condom use, with a substantial proportion (35.6%) remaining neutral and 26.3% expressing a lack of confidence.

The data indicates that institutional and sociocultural frameworks play a protective role in shaping student attitudes. A large majority of respondents agreed that their religious beliefs (81.7%) and cultural practices (71.5%) actively discourage engagement in RSB. Finally, there was high consensus regarding the need for structural support, with 83.9% of respondents agreeing or strongly agreeing that students should have easy access to accurate sexual health information and services.

Table 9: Appropriateness of attitudinal responses of undergraduate students on risky sexual behaviour

Variables	Attitudinal Responses	
	Appropriate Freq (%)	**Inappropriate Freq (%)**
I can refuse sex when I do not feel ready or safe	559 (88.0)	76 (12.0)
Students should have easy access to accurate sexual health information and services	533 (83.9)	102 (16.1)
Risky sexual behaviour is a serious health concern among undergraduates	525 (82.7)	110 (17.3)
My religious beliefs discourage engagement in risky sexual behaviour	519 (81.7)	116 (18.3)
Alcohol/drug use before sex increases the likelihood of unsafe practices	461 (72.6)	174 (27.4)
My cultural practices discourage engagement in risky sexual behaviour	454 (71.5)	181 (28.5)
Condoms reduce sexual pleasure, so they are not necessary	365 (57.5)	270 (42.5)
Having multiple sexual partners is normal among students	323 (50.9)	312 (49.1)
I feel confident negotiating condom use with a partner	242 (38.1)	393 (61.9)

$\alpha = 0.704$

A descriptive analysis of the individual attitudinal responses was conducted to determine the specific areas of strength and vulnerability in the respondents' protective attitudes toward risky sexual behaviour (RSB). Responses on a 5-point Likert scale were dichotomized into "Correct" (protective) and "Incorrect" (risky or neutral) stances (n=635).

Overall, the respondents demonstrated exceptionally high theoretical and conceptual protective attitudes. The vast majority recognized their personal autonomy, with 88.0% (n=559) holding the correct attitude that they can refuse sex when they do not feel ready or safe. Similarly, broad institutional and societal concepts were well-understood; 83.9% believed students should have easy access to sexual health information, and 82.7% recognized RSB as a serious health concern among undergraduates. Furthermore, religious beliefs served as a strong psychological deterrent for 81.7% of the study population.

However, a critical vulnerability emerged when transitioning from theoretical beliefs to practical, interpersonal negotiation. The lowest proportion of correct attitudes was observed regarding condom negotiation; only 38.1% (n=242) of respondents felt confident negotiating condom use with a partner, leaving a substantial majority (61.9%) with an incorrect or vulnerable stance.

Additionally, normative peer beliefs and physical sensations demonstrated a highly divided consensus among the student body. Nearly half of the respondents (49.1%) held the incorrect/vulnerable attitude that having multiple sexual partners is normal among students, and 42.5% failed to hold the correct protective attitude against the notion that condoms are unnecessary because they reduce sexual pleasure.

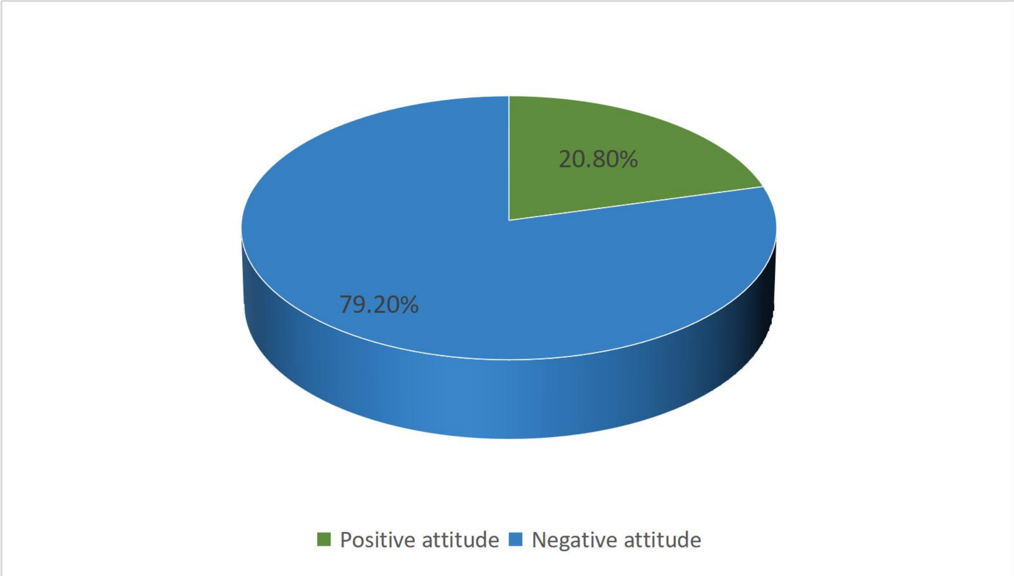

Figure 4: Level of attitude of undergraduate students towards risky sexual behaviour

Following the assessment of individual attitudinal responses, a majority of the respondents, accounting for 79.2% (n=503), exhibited a negative attitude toward RSB. In contrast, 20.8% (n=132) of the surveyed undergraduates demonstrated a positive attitude toward RSB.

Table 10: Factors associated with attitude towards risky sexual behaviour amongst undergraduate students (n = 635)

Variables	Level of Attitude		Test statistic (χ^2)	p-value
	Negative Attitude Freq (%)	Positive Attitude Freq (%)		
Age Group (in years)			1.642	0.440
≤ 18	130 (79.3)	34 (20.7)		
19 - 24	325 (78.3)	90 (21.7)		
≥ 25	48 (85.7)	8 (14.3)		
Sex			1.836	0.175
Female	239 (81.6)	54 (18.4)		
Male	264 (77.2)	78 (22.8)		
Institution			0.179	0.672
BIU	52 (81.3)	12 (18.8)		
UNIBEN	451 (79.0)	120 (21.0)		
Level of Study			13.021	**0.023**
100	94 (78.3)	26 (21.7)		
200	108 (78.3)	30 (21.7)		
300	107 (87.0)	16 (13.0)		
400	110 (71.4)	44 (28.6)		
500	38 (79.2)	10 (20.8)		
600	46 (88.5)	6 (11.5)		
Faculty Type			0.858	0.354
Health related	323 (80.3)	79 (19.7)		
Non-health related	180 (77.3)	53 (22.7)		
Religion			1.169*	0.285
Christianity	495 (79.5)	128 (20.5)		
Islam	8 (66.7)	4 (33.3)		
Place of Residence			1.211	0.271
Off campus	225 (81.2)	52 (18.8)		
On campus	278 (77.7)	80 (22.3)		
Average Monthly Allowance			0.302	0.583
≤ ₦50,000	265 (80.1)	66 (19.9)		
> ₦50,000	238 (78.3)	66 (21.7)		
Level of Knowledge (n=468)			56.505	**<0.001**
Poor knowledge	66 (58.9)	46 (41.1)		
Good knowledge	320 (89.9)	36 (10.1)		

** Fisher's Exact test used*

A cross-tabulation analysis using Pearson's Chi-Square was conducted to examine the association between socio-demographic factors, foundational knowledge, and respondents' attitudes towards risky sexual behaviour (RSB).

The analysis revealed that an individual's level of knowledge is the most profound determinant of their attitude ($\chi^2 = 56.505$, $p < 0.001$). A majority (89.9%) of respondents with Good knowledge held a negative attitude toward RSB. In contrast, only 58.9% of those with Poor knowledge demonstrated a negative attitude, with a substantial 41.1% exhibiting a positive (accepting) attitude toward sexual risks.

Among the socio-demographic and institutional variables, only the level of study demonstrated a statistically significant association with respondents' attitudes ($\chi^2 = 13.021$, $p = 0.023$). Negative attitudes were highest among students in their final year (600 level) at 88.5%, and third year (300 level) at 87.0%. Interestingly, 400-level students exhibited the highest proportion of positive (risk-accepting) attitudes at 28.6%.

Notably, other socio-demographic characteristics did not yield statistically significant comparative differences regarding student attitudes. Variables including age group ($p = 0.440$), sex ($p = 0.175$), institution of study ($p = 0.672$), faculty type ($p = 0.354$), religion ($p = 0.285$), financial allowance ($p = 0.583$), and place of residence ($p = 0.271$) were not significantly associated with the respondents' disposition towards risky sexual behaviour.

Table 11: Predictors of negative attitude towards risky sexual behaviour amongst undergraduate students

Variables	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Age Group (in years)			
≤ 18*	1	-	-
19 - 24	0.624	0.307 - 1.271	0.194
≥ 25	0.405	0.104 - 1.576	0.192
Sex			0.765
Male*	1	-	-
Female	1.088	0.627 - 1.887	0.765
Institution			0.687
UNIBEN*	1	-	-
BIU	0.786	0.243 - 2.542	0.687
Level of Study			
100*	1	-	-
200	1.273	0.580 - 2.794	0.547
300	1.399	0.516 - 3.794	0.510
400	1.089	0.419 - 2.833	0.861
500	0.948	0.278 - 3.237	0.933
600	4.942	0.817 - 29.895	0.082
Faculty Type			
Health related*	1	-	-
Non-health related	0.894	0.477 - 1.675	0.726
Religion			
Christianity*	1	-	-
Islam	0.636	0.133 - 3.035	0.570
Place of Residence			
On campus*	1	-	-
Off campus	1.428	0.789 - 2.585	0.240
Average Monthly Allowance			
> ₦50,000*	1	-	-
≤ ₦50,000	0.952	0.541 - 1.677	0.866
Level of Knowledge			
Poor knowledge*	1	-	-
Good knowledge	6.195	3.719 - 10.320	**<0.001**

** Indicates reference variable, R^2 = 10.0% - 16.6%, AOR = Adjusted Odds Ratio, CI = Confidence interval*

A backward conditional binary logistic regression was conducted to determine the independent predictors of attitude level. Following an extensive nine-step elimination process, eight of the nine variables were systematically removed from the equation. The model determined that demographic and structural factors, including grouped age, biological sex, financial status, living arrangements, religion, and academic discipline, possessed no statistically significant independent predictive value in shaping a student's overall attitude toward RSB.

The final mathematical model revealed that the respondent's Level of Knowledge, was the sole independent predictor of their attitude ($p < 0.001$). Students who demonstrated good knowledge regarding RSB were over six times more likely to hold a negative attitude toward risky sexual practices compared to students who possessed poor knowledge (AOR = 6.195, 95% CI: 3.719 - 10.320).

SECTION D

PREVALENCE OF RISKY SEXUAL BEHAVIOUR AMONGST UNDERGRADUATE STUDENTS

Table 12: Lifetime prevalence of risky sexual behaviour amongst undergraduate students

Variables	Frequency	Percent
Ever had sexual intercourse? (n=635)		
Yes	169	26.6
No	466	73.4
Type of sexual intercourse had* (n=169)		
Vaginal	159	94.1
Oral sex	58	34.3
Anal sex	16	9.5
Age at first sexual exposure (Sexual debut) (in years) (n=169)		
< 18	50	29.6
≥ 18	119	70.4
Mean age of sexual debut = 18.21 ± 2.86 years		
Ever experienced the following* (n = 169)		
Sex without a condom	127	75.1
Sex with casual/uncommitted partner	97	57.4
Sex with more than one partner in the same time period	36	21.3
Sex under the influence of alcohol	32	18.9
Sex for money	28	16.6
Been coerced into sex	24	14.2
Sex for gifts	12	7.1
Coerced someone into sex	12	7.1
Sex under the influence of drugs	10	5.9
Sex for grades	8	4.7
None of the above	20	11.8

** Multiple response question*

A descriptive analysis was conducted to determine the lifetime prevalence and specific typologies of risky sexual behaviour (RSB) among the respondents. Of the total study population (n=635), approximately one-quarter (26.6%, n=169) reported having ever engaged in sexual intercourse.

Among the sexually active cohort, the mean age of sexual debut was 18.21 years (± 2.86 SD). While the majority (70.4%) initiated sexual activity at age 18 or older, a substantial proportion (29.6%) reported early sexual initiation prior to the age of 18. Regarding the typologies of sexual intercourse experienced, vaginal sex was nearly universal (94.1%), followed by oral sex (34.3%), and anal sex (9.5%).

Further analysis of the sexually active respondents revealed highly prevalent engagement in specific high-risk practices, with only 11.8% reporting they had never engaged in any of the listed risky behaviours.

Unprotected sex emerged as the most prominent risky sexual practice, with a vast majority (75.1%) reporting a history of having sex without a condom. High-risk partnership dynamics were also highly prevalent; more than half (57.4%) reported having sex with a casual or uncommitted partner, and over one-fifth (21.3%) reported having multiple concurrent sexual partners within the same time period.

Substance use and transactional sex further complicated the risk profile. Nearly one in five sexually active students (18.9%) reported engaging in sex under the influence of alcohol, while 5.9% reported sex under the influence of drugs. Transactional sexual encounters were notably present, with respondents reporting exchanging sex for money (16.6%), gifts (7.1%), and academic grades (4.7%).

The data also revealed concerning rates of sexual coercion within the population. A troubling 14.2% of sexually active respondents reported having been coerced into sex, while 7.1% admitted to having coerced someone else into a sexual encounter.

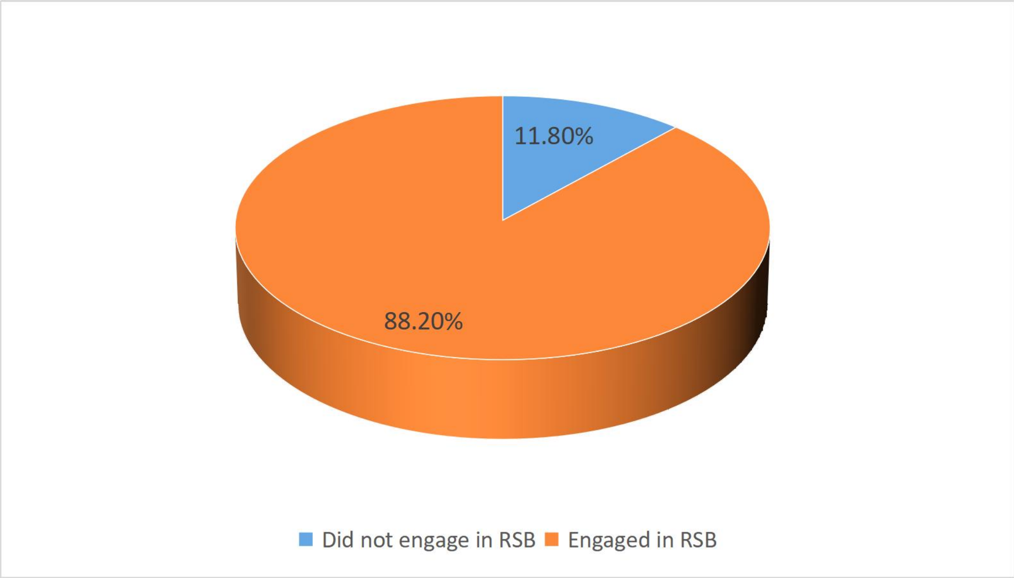

Figure 5: Lifetime prevalence of risky sexual behaviour amongst undergraduate students

A majority of the sexually active respondents (88.17%) have engaged in at least one risky sexual behaviour during their lifetime. Only about one-tenth (11.83%) of sexually active respondents have never engaged in any risky sexual practices.

Table 13: One year prevalence of risky sexual behaviour amongst undergraduate students

Variable	Frequency	Percent
Had sexual intercourse in the last 12 months? (n=169)		
Yes	123	72.8
No	46	27.2
Number of sexual partners in the last 12 months (n=123)		
≤ 2 partners	106	86.2
> 2 partners	17	13.8
Mean number of partners = 1.66 ± 1.10 partners		
Condom use during last sexual intercourse (n=123)		
No	69	56.1
Yes	54	43.9
In the last 12 months, how often did you have sex without a condom? (n=123)		
Rarely	43	35
Sometimes	26	21.1
Most times	24	19.5
Never	16	13
Always	14	11.4
Experienced any of the following in the last 12 months* (n = 123)		
Sex without a condom	89	72.4
Sex with casual/uncommitted partner	63	51.2
Sex with more than one partner in the same time period	32	26
Sex for money	12	9.8
Sex under the influence of alcohol	12	9.8
Been coerced into sex	10	8.1
Sex for gifts	6	4.9
Sex for grades	2	1.6
None of the above	12	9.8

* *Multiple response question*

A descriptive analysis was conducted to assess the recent, 12-month prevalence of risky sexual behaviour (RSB) among respondents who reported a lifetime history of sexual activity (n=169). The findings indicate a highly active population, with nearly three-quarters (72.8%, n=123) reporting engagement in sexual intercourse within the past year.

Among those sexually active in the past year, the mean number of sexual partners was 1.66 (± 1.10 SD). While the vast majority (86.2%) limited their sexual network to two or fewer partners during this timeframe, a high-risk subset of 13.8% reported having more than two partners. Furthermore, partnership stability was low, with over half of the recently active respondents (51.2%) reporting sexual encounters with a casual or uncommitted partner, and 26.0% reporting concurrent sexual relationships (more than one partner in the same time period).

The data revealed than more than half of the recently active respondents (56.1%) reported failing to use a condom during their most recent sexual encounter. When evaluating long-term consistency over the past year, only 13.0% reported never having sex without a condom, indicating that a staggering 87.0% of the active student population engaged in condomless sex at least occasionally. Consistent with these adherence metrics, condomless sex was the most prevalent specific risk behavior reported over the 12-month period (72.4%).

Additional sexual risky practices remained present within the 12-month timeframe, though at slightly lower prevalence than the lifetime data. Nearly one in ten active students (9.8%) engaged in sex under the influence of alcohol. Transactional sexual encounters were also reported, including exchanging sex for money (9.8%), gifts (4.9%), and academic grades (1.6%). Concerningly, recent sexual coercion remains a localized threat, with 8.1% of active respondents reporting having been coerced into sex within the past year. Only 9.8% of the recently active respondents navigated the past 12 months without engaging in any of the listed risk sexual behaviours.

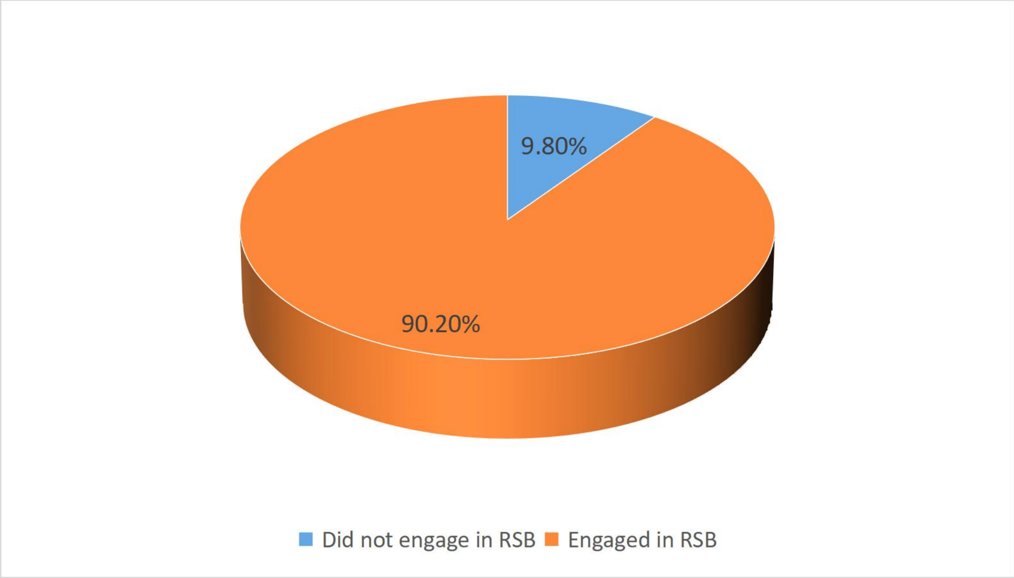

Figure 6: Recent prevalence of risky sexual behaviour amongst undergraduate students

The findings reveal a slightly elevated risk profile within this active demographic. A majority, accounting for 90.2% (n=111), reported engaging in at least one RSB within the last year. Conversely, only 9.8% (n=12) of the sexually active respondents successfully maintained safe sexual practices without engaging in any defined risky behaviors during the same timeframe.

Table 14: Factors associated with lifetime and recent prevalence of risky sexual behaviour amongst undergraduate students

Variable	Lifetime prevalence		Test statistic (χ^2)	p-value	Recent prevalence		Test statistic (χ^2)	p-value
	Never engaged Freq (%)	**Ever engaged Freq (%)**			**Never engaged Freq (%)**	**Ever engaged Freq (%)**		
Age Group			3.053*	0.217			2.849*	0.280
≤ 18	6 (20.0)	24 (80.0)			4 (20.0)	16 (80.0)		
19 - 24	10 (8.9)	102 (91.1)			6 (7.7)	72 (92.3)		
≥ 25	4 (14.8)	23 (85.2)			2 (8.0)	23 (92.0)		
Sex			1.75	0.186	*(n=123)*		7.663	**0.006**
Female	12 (15.4)	66 (84.6)			10 (17.9)	46 (82.1)		
Male	8 (8.8)	83 (91.2)			2 (3.0)	65 (97.0)		
Institution			1.427*	0.232			3.983*	0.105
BIU	0 (0.0)	10 (100.0)			2 (33.3)	4 (66.7)		
UNIBEN	20 (12.6)	139 (87.4)			10 (8.5)	107 (91.5)		
Level of Study			1.838*	0.871			11.548*	0.066
100	2 (6.7)	28 (93.3)			2 (11.1)	16 (88.9)		
200	2 (8.3)	22 (91.7)			0 (0.0)	16 (100.0)		
300	6 (16.2)	31 (83.8)			6 (26.1)	17 (73.9)		
400	6 (12.5)	42 (87.5)			4 (10.0)	36 (90.0)		
500	2 (14.3)	12 (85.7)			0 (0.0)	12 (100.0)		
600	2 (12.5)	14 (87.5)			0 (0.0)	14 (100.0)		
Faculty Type			0.009	0.926			3.994*	0.063
Health related	12 (11.7)	91 (88.3)			4 (5.4)	70 (94.6)		
Non-health related	8 (12.1)	58 (87.9)			8 (16.3)	41 (83.7)		
Religion			0.272*	0.602			0.220*	0.999
Christianity	20 (12.0)	147 (88.0)			12 (9.9)	109 (90.1)		
Islam	0 (0.0)	2 (100.0)			0 (0.0)	2 (100.0)		
Place of Residence			10.457	**0.001**	*(n=123)*		3.731*	0.067
Off campus	4 (4.4)	87 (95.6)			4 (5.5)	69 (94.5)		
On campus	16 (20.5)	62 (79.5)			8 (16.0)	42 (84.0)		
Average Monthly Allowance			2.071	0.15			0.181*	0.764
≤ ₦50,000	12 (15.8)	64 (84.2)			4 (8.3)	44 (91.7)		
> ₦50,000	8 (8.6)	85 (91.4)			8 (10.7)	67 (89.3)		
Age at Sexual Debut (in years)			4.177	**0.041**				0.215*
<18	2 (4.0)	48 (96.0)			2 (4.0)	4 (11.8)	30 (88.2)	
≥18	18 (15.1)	101 (84.9)			18 (15.1)	8 (9.0)	81 (91.0)	
Level of Knowledge (n=125)			4.683	**0.03**			1.049*	0.483
Poor knowledge	2 (5.3)	36 (94.7)			2 (6.7)	28 (93.3)		
Good knowledge	18 (20.7)	69 (79.3)			8 (14.0)	49 (86.0)		
Attitude			0.089*	0.766	*(n=123)*		2.761*	0.108
Positive attitude	6 (13.0)	40 (87.0)			6 (16.7)	30 (83.3)		
Negative attitude	14 (11.4)	109 (88.6)			6 (6.9)	81 (93.1)		

** Fisher's Exact Test used*

The table above presents the bivariate analysis assessing the association between various socio-demographic, economic, and behavioural characteristics and both the lifetime and recent (one-year) prevalence of Risky Sexual Behaviour (RSB) among the undergraduate respondents.

Factors Associated with Lifetime Prevalence of RSB

The analysis revealed that three variables were significantly associated with the lifetime prevalence of RSB ($p < 0.05$). Firstly, place of residence was a highly significant determinant ($\chi^2 = 10.457$, $p = 0.001$). A vast majority (95.6%) of students residing off-campus had engaged in RSB, compared to 79.5% of those residing in on-campus hostels. Secondly, age at sexual debut significantly influenced lifetime prevalence ($\chi^2 = 4.177$, $p = 0.041$); respondents who initiated sexual activity before the age of 18 reported a higher prevalence of RSB (96.0%) compared to those who debuted at 18 years or older (84.9%). Finally, the respondent's level of knowledge regarding reproductive health was significantly associated with lifetime RSB ($\chi^2 = 4.683$, $p = 0.030$). Students who demonstrated poor knowledge had a substantially higher prevalence of RSB (94.7%) compared to their peers with good knowledge (79.3%). Other variables, including age, sex, institution, level of study, monthly allowance, and attitude, did not show a statistically significant association with lifetime RSB ($p > 0.05$).

Factors Associated with Recent (One-Year) Prevalence of RSB When assessing the recent prevalence of RSB (within the past 12 months) among sexually active respondents, the drivers shifted. Sex emerged as the sole statistically significant factor

($\chi^2 = 7.663$, $p = 0.006$). A significantly higher proportion of male respondents (97.0%) reported engaging in recent RSB compared to female respondents (82.1%).

Interestingly, variables that were significantly associated with lifetime prevalence, such as place of residence ($p = 0.067$), level of knowledge ($p = 0.483$), and age at sexual debut ($p = 0.736$), were not statistically significant predictors of recent RSB. Furthermore, faculty type showed a borderline non-significant association ($p = 0.063$), with health-related students reporting slightly higher recent prevalence (94.6%) than non-health-related students (83.7%), however, this association was not statistically significant. Other socio-economic and behavioural variables, including monthly allowance and attitude, remained statistically insignificant for recent prevalence.

Table 15: Predictors of lifetime prevalence of risky sexual behaviour amongst undergraduate students

Variables	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Age Group			0.053
≥ 25 years*	1.00		
≤ 18 years	0.2	0.02 - 1.93	0.166
19 - 24 years	1.87	0.47 - 7.41	0.375
Sex			
Male*	1.00		
Female	0.5	0.17 - 1.47	0.207
Faculty Type			
Non-health related*	1.00		
Health related	1.37	0.44 - 4.22	0.588
Level of Study			0.37
100 Level*	1.00		
200 Level	0.66	0.08 - 5.53	0.704
300 Level	0.12	0.01 - 1.06	0.056
400 Level	0.09	0.01 - 0.94	**0.044**
500 Level	0.07	0.00 - 1.04	0.053
600 Level	0.08	0.01 - 1.34	0.079
Average Monthly Allowance			
> ₦50,000*	1.00		
≤ ₦50,000	0.54	0.18 - 1.60	0.263
Place of Residence			
On campus*	1.00		
Off campus	17.5	3.07 - 99.72	**0.001**
Age at Sexual Debut			
≥ 18 years*	1.00		
< 18 years	8.82	1.11 - 69.83	**0.039**
Level of Knowledge			
Good knowledge*	1.00		
Poor knowledge	54.61	4.74 - 628.98	**0.001**
Attitude			
Negative attitude*	1.00		
Positive attitude	0.04	0.01 - 0.30	**0.002**

** Indicates reference variables, R^2 = 22.%-37.8%, AOR = Adjusted Odds Ratio, CI = Confidence interval*

A backward conditional binary logistic regression was conducted to determine the independent predictors for the lifetime initiation of risky sexual behaviour (RSB). The model simultaneously controlled for socio-demographic factors, economic variables, and cognitive-attitudinal dispositions.

Significant Predictors of RSB The analysis revealed four variables that acted as highly significant, independent predictors of RSB ($p < 0.05$).

Cognitive awareness exhibited the most profound magnitude of risk; undergraduates demonstrating poor reproductive health knowledge were over 54 times more likely to engage in high-risk sexual practices compared to their peers with good knowledge (AOR = 54.61; 95% CI: 4.74 – 628.98; p = 0.001).

Environmental autonomy also proved to be a critical catalyst. Students residing in off-campus accommodations were 17.5 times more likely to engage in RSB compared to those living within the regulated environment of on-campus hostels (AOR = 17.50; 95% CI: 3.07 – 99.72; p = 0.001). Furthermore, early sexual initiation significantly elevated long-term risk trajectories, with respondents who debuted before the age of 18 being 8.8 times more likely to report lifetime RSB than those who debuted at 18 years or older (AOR = 8.82; 95% CI: 1.11 – 69.83; p = 0.039).

Conversely, attitude emerged as a robust protective factor within the tertiary ecosystem. Students holding a positive attitude towards safe sexual practices experienced a 96% reduction in the odds of engaging in RSB compared to those harboring negative attitudes (AOR = 0.04; 95% CI: 0.01 – 0.30; p = 0.002).

Non-Significant Factors When controlling for the aforementioned variables, several foundational demographic and economic factors failed to independently predict RSB.

Age group (p = 0.053), sex (p = 0.207), and faculty type (p = 0.588) did not show a statistically significant association with the outcome. Financial vulnerability, measured via an average monthly allowance of ₦50,000 or less, also lacked independent predictive power (p = 0.263).

Finally, the overall level of study did not significantly improve the predictive model (overall p = 0.370). While a minor intra-category variance was observed specifically among 400-level students (AOR = 0.09; p = 0.044) when compared to the 100-level reference group, the overarching variable of academic level remained an insufficient independent predictor of risky sexual behaviour.

Table 16: Predictors of recent prevalence of risky sexual behaviour

Variables	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Age Group			0.322
≥ 25 years*	1.00		
≤ 18 years	0.47	0.04 - 6.03	0.565
19 - 24 years	2.26	0.29 - 17.80	0.438
Sex			
Male*	1.00		
Female	0.11	0.02 - 0.58	**0.009**
Institution			
UNIBEN*	1.00		
BIU	0.28	0.01 - 7.64	0.451
Faculty Type			
Non-health related*	1.00		
Health related	3.44	0.55 - 21.68	0.188
Place of Residence			
On campus*	1.00		
Off campus	4.34	1.04 - 18.17	**0.045**
Average Monthly Allowance			
> ₦50,000*	1.00		
≤ ₦50,000	2.11	0.37 - 11.98	0.399
Age at Sexual Debut			
≥ 18 years*	1.00		
< 18 years	4	0.31 - 51.06	0.286
Level of Knowledge			
Good knowledge*	1.00		
Poor knowledge	9.25	0.77 - 110.63	0.079
Attitude			
Negative attitude*	1.00		
Positive attitude	0.19	0.05 - 0.79	**0.023**

** Indicates reference variables, Nagelkerke Pseudo R^2 = 12.4% - 26.3%, AOR = Adjusted Odds Ratio, CI = Confidence interval*

A backward conditional logistic regession model was used to identify the independent predictors of recent (one-year) risky sexual behaviour (RSB) among the undergraduate respondents. The model simultaneously controlled for socio-demographic factors, economic status, sexual history, and cognitive-attitudinal variables.

Significant Predictors of Recent RSB

The analysis revealed three variables that acted as statistically significant, independent predictors of recent RSB ($p < 0.05$).

Biological sex emerged as the strongest determinant of recent high-risk activity; female undergraduates demonstrated an 89% reduction in the odds of engaging in recent RSB compared to their male counterparts (AOR = 0.11; 95% CI: 0.02 – 0.58; $p = 0.009$).

Environmental autonomy also remained a significant risk catalyst. Students residing in off-campus accommodations were more than 4 times as likely to engage in recent RSB compared to those living in regulated on-campus hostels (AOR = 4.34; 95% CI: 1.04 – 18.17; $p = 0.045$). Furthermore, a positive cognitive disposition served as a significant protective factor; students exhibiting a positive attitude towards reproductive health and safe sexual practices experienced an 81% reduction in the odds of engaging in recent RSB compared to those with negative attitudes (AOR = 0.19; 95% CI: 0.05 – 0.79; $p = 0.023$).

Non-Significant Factors

While poor reproductive knowledge demonstrated a substantial adjusted odds ratio (AOR = 9.25), its wide confidence interval rendered it a borderline, non-significant independent predictor in this specific model ($p = 0.079$).

When controlling for the aforementioned variables, several foundational demographic and history factors failed to independently predict recent RSB. Age group ($p = 0.322$), institution of study ($p = 0.451$), faculty type ($p = 0.188$), and financial vulnerability via average monthly allowance ($p = 0.399$) did not show a statistically significant association with the outcome. Notably, age at sexual debut, which is often a critical historical milestone, did not independently predict recent high-risk activity ($p = 0.286$), indicating that recent RSB is driven more by immediate environmental factors and gender dynamics than by early initiation.

SECTION E

FACTORS INFLUENCING RISKY SEXUAL BEHAVIOUR AMONGST UNDERGRADUATE STUDENTS

Table 17: Factors influencing risky sexual behaviour amongs undergraduate students (n=635)

Variable	Yes Frequency (%)	No Frequency (%)
Alcohol or drug use	621 (97.8)	14 (2.2)
Peer pressure	615 (96.9)	20 (3.1)
Poor access to sexual health information	605 (95.3)	30 (4.7)
Exposure to sexual content in media	591 (93.1)	44 (6.9)
Financial difficulties	573 (90.2)	62 (9.8)
Emotional stress or psychological distress	510 (80.3)	125 (19.7)
Fear of losing a partner	483 (76.1)	152 (23.9)
Living off-campus	412 (64.9)	223 (35.1)
Availability of adequate institutional training on sexual Health	333 (52.4)	302 (47.6)

Regarding the factors influencing engagement in risky sexual behaviour amongst undergraduate students, the respondents had a near-universal agreement on several core drivers.

Substance use and social influence were identified as the most prominent factors, with 97.8% of respondents agreeing that alcohol or drug use increases the likelihood of unsafe sexual practices, and 96.9% agreeing that peer pressure plays a significant role. Furthermore, structural and socioeconomic factors were highly recognized; 95.3% agreed that poor access to sexual health information contributes to RSB, and 90.2% acknowledged that financial difficulties can heavily influence sexual decision-making.

The influence of media and psychological well-being was also strong. A majority agreed that exposure to sexual content in the media (93.1%) and emotional or psychological distress (80.3%) increase the likelihood of engaging in RSB. Relational dynamics were shown to impact protective measures, as 76.1% of students agreed that the fear of losing a partner could make one susceptible to risky sexual behaviour.

Regarding environmental and institutional factors, 64.9% of respondents identified living off-campus as a risk factor for risky sexual practices. Notably, respondents were highly divided on the institutional support available to them; only a slight majority (52.4%) agreed that adequate institutional training on sexual health behaviour is available, while a substantial 47.6% felt that such training is inadequate.

Table 18: Association between respondents' perceived factors and prevalence of risky sexual behaviour

Factors	Lifetime Prevalence		Test Statistic (X^2)	p - value	Recent Prevalence		Test Statistic (X^2)	p - value
	Never Engaged Freq (%)	Ever Engaged Freq (%)			Never Engaged Freq (%)	Ever Engaged Freq (%)		
Peer pressure influences RSB			0.289*	0.637			2.258*	0.176
No	2 (16.7)	10 (83.3)			2 (25.0)	6 (75.0)		
Yes	18 (11.5)	139 (88.5)			10 (8.7)	105 (91.3)		
Alcohol/drug use increases likelihood of unsafe practices			0.835*	>0.999			0.682*	>0.999
No	0 (0.0)	6 (100.0)			0 (0.0)	6 (100.0)		
Yes	20 (12.3)	143 (87.7)			12 (10.3)	105 (89.7)		
Financial difficulties influence sexual decisions			1.427*	0.609			0.220*	>0.999
No	0 (0.0)	10 (100.0)			0 (0.0)	2 (100.0)		
Yes	20 (12.6)	139 (87.4)			12 (9.9)	109 (90.1)		
Fear of losing a partner makes condom negotiation difficult			3.778	0.052			1.020*	0.506
No	2 (4.2)	46 (95.8)			2 (5.6)	34 (94.4)		
Yes	18 (14.9)	103 (85.1)			10 (11.5)	77 (88.5)		
Living off-campus increases exposure to risky practices			0.006	0.937			0.215*	0.736
No	6 (11.5)	46 (88.5)			4 (11.8)	30 (88.2)		
Yes	14 (12.0)	103 (88.0)			8 (9.0)	81 (91.0)		
Poor access to sexual health information contributes to RSB			1.427*	0.609			0.925*	>0.999
No	0 (0.0)	10 (100.0)			0 (0.0)	8 (100.0)		
Yes	20 (12.6)	139 (87.4)			12 (10.4)	103 (89.6)		
Exposure to sexual content in media influences behaviour			1.734*	0.364			0.925*	>0.999
No	0 (0.0)	12 (100.0)			0 (0.0)	8 (100.0)		
Yes	20 (12.7)	137 (87.3)			12 (10.4)	103 (89.6)		
Emotional stress or psychological distress can increase RSB			3.755*	0.081			1.988*	0.362
No	0 (0.0)	24 (100.0)			0 (0.0)	16 (100.0)		
Yes	20 (13.8)	125 (86.2)			12 (11.2)	95 (88.8)		
Adequate institutional training is available on sexual health			0.063	0.802			3.170*	0.120
No	8 (11.1)	64 (88.9)			2 (4.0)	48 (96.0)		
Yes	12 (12.4)	85 (87.6)			10 (13.7)	63 (86.3)		

** Fisher's Exact Test used*

Bivariate analysis was done to evaluate the associations between the respondents' perceived factors and the lifetime and recent prevalence of RSB.

Across all evaluated perceptions, including the influence of peer pressure, alcohol and drug use, financial difficulties, media exposure, and institutional training, no perceived factors demonstrated a statistically significant association ($p < 0.05$) with either lifetime or recent RSB. The data reveals a consistent pattern: what undergraduates perceive as the theoretical or societal drivers of risky sexual practices does not statistically correlate with their actual reported conduct.

While the associations were statistically insignificant, specific emotional and relational vulnerabilities approached borderline significance when evaluating long-term (lifetime) behavioural histories. The perception that the fear of losing a partner complicates condom negotiation trended strongly toward significance for lifetime RSB ($p = 0.052$). Similarly, the belief that emotional or psychological distress increases risky sexual behaviour exhibited borderline significance ($p = 0.081$).

Notably, however, the statistical weight of these relational and emotional factors diminished entirely when assessed against recent, one-year behavioural prevalence ($p = 0.506$ and $p = 0.362$, respectively). This indicates that while emotional vulnerabilities may play a theoretical role in the broader, lifetime accumulation of sexual risk, they are not immediate, short-term drivers of recent risky sexual behaviour among the study population.

Table 19: Perceived factors predicting lifetime prevalence of risky sexual behaviour amongst undergraduate students

Perceived Factors	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Peer pressure influences RSB			
Yes*	1		
No	0.620	0.12 - 3.28	0.574
Fear of losing a partner makes condom negotiation difficult			
Yes*	1		
No	4.020	0.89 - 18.04	0.069
Living off-campus			
Yes*	1		
No	0.870	0.29 - 2.57	0.795
Adequate institutional training			
Yes*	1		
No	1.090	0.40 - 2.93	0.866

** Indicates reference variable, R^2 = 2.6% - 5.1%, C.I = Confidence Interval*

A backward conditional multivariate logistic regression was performed to ascertain the independent effects of the respondents' perceived factors on their lifetime prevalence of risky sexual behaviour. Variables suffering from complete separation (zero-cells) in earlier bivariate analyses were excluded to ensure mathematical stability. The initial model included peer pressure, fear of losing a partner, off-campus living exposure, and institutional training. The overall omnibus model was not statistically significant ($X^2 = 4.922$, $p = 0.295$).

Consistent with the bivariate findings, none of the perceived psychosocial or environmental factors emerged as statistically significant independent predictors of lifetime RSB ($p > 0.05$). Maximum likelihood estimation systematically eliminated institutional training, off-campus living, and peer pressure due to a lack of predictive capacity. While the perception that fear of losing a partner complicates condom negotiation was retained in the final iteration of the model, it remained a borderline, non-significant factor (AOR = 4.02; 95% CI: 0.89–18.04; $p = 0.069$). Consequently, students' cognitive perceptions regarding the societal drivers of RSB do not independently predict their actual lifetime engagement in such behaviours.

Table 20: Perceived factors predicting the recent prevalecnce of risky sexual behaviour amongst undergraduate students

Perceived Factors	Adjusted Odds Ratio (AOR)	95% C.I. for AOR	p-value
Peer pressure			
Yes	1		
No	0.300	0.05 - 1.85	0.194
Fear of losing a partner			
Yes*	1		
No	2.470	0.47 - 12.93	0.285
Living off-campus			
Yes	1		
No	0.510	0.13 - 2.02	0.335
Adequate institutional training			
Yes*	1		
No	3.810	0.80 - 18.20	0.094

** Indicates reference variable, R^2 = 2.8% - 6.0%, C.I = Confidence Interval*

A backward conditional multivariate logistic regression was conducted to determine if respondents' perceived psychosocial and environmental factors independently predicted recent (one-year) prevalence of risky sexual behaviour. Consistent with the lifetime prevalence analysis, variables presenting with complete data separation in bivariate cross-tabulations were excluded to enable convergence of the regression model. The model evaluated the predictive capacity of peer pressure, fear of losing a partner, off-campus living exposure, and institutional training. The overall omnibus model was not statistically significant (X^2 = 3.529, p = 0.060). The maximum likelihood estimation process systematically eliminated living off-campus, fear of losing a partner, and peer pressure due to a lack of independent predictive strength (p > 0.10). While the perception that adequate institutional training is lacking was retained in the final iteration, it did not achieve statistical significance (AOR = 3.81; 95% CI: 0.80–18.20; p = 0.094). These findings definitively illustrate that students' subjective perceptions regarding the drivers of high-risk sexual practices are not significant independent predictors of their actual recent behaviour.

CHAPTER FIVE

DISCUSSION, CONCLUSION, AND RECOMMENDATION

5.1 Discussion

This chapter discusses the findings presented in Chapter Four of this study, which assessed knowledge, attitudes, prevalence and perceived factors influencing risky sexual behaviour among university students at the University of Benin (UNIBEN), and Benson Idahosa University (BIU), Benin City, Nigeria. The discussion follows the sequence of the study objectives and is situated within relevant literature from Nigeria, Africa, and the international literature. Each section interprets the quantitative findings in relation to prior empirical evidence, identifies agreements and discrepancies with comparable studies, and addresses methodological or contextual factors that may account for observed differences. The chapter concludes with a summary of the principal findings.

The socio-demographic distribution indicates that the respondents were predominantly young adults in their late teens and early twenties, with the most predominant age group being 19 to 24 years. This demographic profile is highly consistent with standard university enrollment patterns observed across southern Nigeria, and is similar to those reported in similar literature.[28,58] The dominance of the young adult age bracket reflects the standard chronological progression of the Nigerian educational system. This demographic profile places the respondents exactly at the peak developmental age for sexual exploration, identity formation, and peer-influenced socialization. Consequently, public health interventions and reproductive health policies designed by the university and state health ministries must be specifically tailored to the psychosocial realities of young adults.

There was a slight male predominance in the study population, A finding also similar to that reported in similar literature.[28] The vast majority of the students were enrolled in the public federal institution rather than the private university. The overwhelming representation of students from the public institution (UNIBEN) compared to the private one (BIU) reflects the massive structural and carrying capacity differences between federal and private universities in Edo State.

Most of the respondents were studying health-related courses, which is probably a direct result of the study's sampling framework, which heavily included departments within the College of Medical Sciences. Students in non-health related faculties might need more focus in sexual health education programs as they might not have the knowledge of sexual diseases, transmission mechanisms and pathological processes that those in the health related faculties posess.

The population was almost entirely Christian. The near-total Christian representation is characteristic of the general ethno-religious demographics of Edo State and southern Nigeria at large. Religious differences should be taken into account in sexual health education as Muslims tend to be more averse towards discussing sexual topics, which could result in reduced levels of knowledge regarding sexual health.

Regarding living arrangements, a slight majority resided within on-campus hostels, and the students were relatively evenly split between lower and higher average monthly allowance brackets. Interventions must utilize youth-friendly platforms and ensure that sexual health resources are equally accessible to those of high and low economic standings, both on-campus and off-campus.

The analysis of baseline awareness revealed that a significant majority of the respondents had previously heard of risky sexual behaviour. This high level of awareness amongst the students is likely due to the educational background of the sample population, with all the respondents having at least completed secondary level of education. A high level of awareness about risky sexual behaviour lays a good foundation upon which health education campaigns and policies can be made.

When exploring their specific sources of information, digital platforms, namely social media and the internet, overwhelmingly dominated as the primary channels. Formal educational settings, such as school lectures, and informal peer networks also contributed notably, though to a lesser extent than digital media. Conversely, interactions with formal health workers, traditional mass media outlets (like television and radio), and academic journals were the least utilized sources for obtaining sexual health information. The high reliance on digital platforms over traditional sources is strongly supported by contemporary epidemiological literature, across Sub-Saharan Africa demonstrate that the proliferation of smartphones has fundamentally shifted how youth seek reproductive health information, making the internet and social networking sites their primary educational tools.[59] This finding is also supported by research conducted among Nigerian undergraduates, which confirms that social media has eclipsed traditional classroom instruction, healthcare providers, and parental guidance as the primary vector for sexual health awareness.[60]

This trend is likely driven by the anonymity, convenience, and immediate accessibility that digital platforms offer compared to traditional media, as social media and internet searches provide instantaneous, anonymous answers to highly sensitive sexual inquiries.. This profound shift in information sourcing could also be a direct reflection of the digital-native status of the modern undergraduate demographic. Students in UNIBEN and BIU exist in an environment with high smartphone penetration and continuous internet connectivity. Furthermore, the decline of television and radio as information sources mirrors the global decline in traditional media consumption among Generation Z. The very low utilization of academic journals is expected, as they employ complex clinical jargon that is generally inaccessible and unappealing to non-medical students.

The overwhelming reliance on unregulated digital spaces presents a critical public health challenge, as social media frequently propagates medical misinformation and actively glamorizes risky sexual practices (such as the hook-up culture or transactional sex). This modern pattern of information sourcing Highlights the need for Public health interventions to pivot away from relying solely on traditional radio broadcasts or paper leaflets, and more on targeted, evidence-based digital health interventions, such as youth-friendly, anonymous mobile applications and medically accurate infographics distributed directly through popular social media algorithms.

The assessment of respondents' knowledge revealed a strong foundational understanding of the biological and clinical mechanics of risky sexual behaviour. The vast majority of students correctly defined RSB and accurately identified the barrier function of condoms in preventing contact with infectious body fluids. There was also near-universal recognition that multiple sexual partners increase exposure to infections, and that STIs can present asymptomatically. Furthermore, the respondents accurately identified abstinence and mutual monogamy as highly effective protective measures. However, critical knowledge deficits were observed regarding the socio-economic, coercive, and alternative typologies of RSB. A substantial proportion of the students failed to recognize transactional sex, early sexual initiation, coerced sex, and oral sex as categorized forms of risky sexual behaviour. Additionally, while the clinical link to STIs and HIV was well understood, more than half of the respondents failed to recognize infertility as a potential long-term consequence of RSB.

The dichotomy of high clinical knowledge paired with low socio-behavioral recognition is similar to a study by Osuala et al[40] investigating sexual health literacy among Nigerian undergraduates, which confirms that modern students possess excellent theoretical awareness of clinical risks like unprotected vaginal intercourse and HIV transmission. However, the critical failure to identify socio-economic practices as health risks corroborates the findings of Ojewumi and Akinleye,[61] In their research on Nigerian university undergraduates which established that economic pressures often normalize transactional relationships, causing students to view these exchanges as financial survival strategies rather than clinical public health threats.

The excellent biological and clinical knowledge demonstrated by the respondents is highly attributable to the study's demographic composition, where a significant majority are enrolled in health-related faculties. These students receive formal academic exposure to infectious diseases and public health principles. Conversely, the inability to categorize transactional sex, coerced sex, and early initiation as risky behaviours could stem from profound societal normalization within the university micro-environment. Transactional sex is frequently reframed and glamorized by peers and social media as a standard means of maintaining a high-status campus lifestyle.

The students' high baseline understanding of condom use and basic STI transmission, could necessitate a shift in the curriculum of university health sensitization programs. There might be the need for Public Health campaigns to evolve beyond basic biological warnings and focus more on deconstructing the normalization of transactional sex, clearly define reproductive coercion, and emphasize often-ignored long-term consequences such as psychological trauma and secondary infertility.

The assessment of the overall knowledge level revealed that a significant majority of the respondents who had previously heard of risky sexual behaviour demonstrated a good level of knowledge on the topic. Conversely, only a minor proportion of the aware respondents demonstrated poor knowledge. This finding is similar to that of a research conducted amongst undergraduate students in Osun State which showed that the tertiary students generally possessed excellent theoretical awareness of reproductive health and the clinical consequences of risky sexual practices.[58] Similarly, this finding is supported by a study done by Omisore which showed that general knowledge regarding sexually transmitted infections and sexual risk is commendably high among undergraduate populations in southern Nigeria.[43]

The high prevalence of good knowledge observed in this specific study population is likely a direct result of the demographic composition of the sample. With the study population consisting of tertiary students who have at least completed secondary level of education, and may have received some sexual education from secondary school. Additionally, the university campus environment inherently fosters continuous, passive exposure to peer-led health sensitization campaigns, departmental seminars, and digital health information sharing among students. Also, the availability of sexual health information online could explain the high level of knowledge amongst this digitally inclined population. This reasoning is supported by the findings of this study which shows that most of the students got their health information from digital sources.

A good base knowledge of risky sexual behaviour could make the population more receptive to Public Health interventions aimed at mititgating the effects of risky sexual behaviour. A high level of knowledge could also help reduce the prevalence of risky sexual behaviour amongst the young populace.

Bivariate analysis revealed significant socio-demographic disparities in the students' level of knowledge regarding risky sexual behaviour. Academic progression and chronological maturation were profound predictors; as students advanced in age and their level of study, their likelihood of possessing good knowledge increased dramatically. The profound impact of chronological maturation and academic progression on sexual health literacy is heavily supported by a similar research work.[62] The compounding effect of academic progression and age is highly logical within the university micro-environment. A newly admitted student has just transitioned from a heavily sheltered secondary school system, whereas a senior student has spent years navigating campus life, absorbing information from university-wide awareness campaigns, peer experiences, and advanced curricula. Because freshmen demonstrate the lowest health literacy, university administrators would need to mandate comprehensive sexual and reproductive health orientation immediately upon admission, rather than waiting for students to passively acquire knowledge over time.

Furthermore, a significant gender disparity emerged, with female students demonstrating superior knowledge levels compared to their male counterparts. The superior knowledge demonstrated by female students is likely due to increased reception towards sexual knowledge, rooted in a heightened biological and social risk perception; because the socio-cultural stigma and physical burden of an unintended pregnancy fall almost exclusively on the female in the Nigerian context, as well as the increased biological vulnerability of females to sexually tranmitted diseases, they might be intrinsically more motivated to educate themselves on risk mitigation. The gender disparity in knowledge levels could enable females acquire more protective knowledge against the effects of risky sexual behaviour. The gender disparity might necessitate the need for Public health campaigns more actively engage male undergraduates to dismantle any apathy surrounding their sexual health education.

Economic status also played a significant role, as students receiving a higher average monthly allowance were more likely to exhibit good knowledge than those in the lower-income bracket. The correlation between a higher allowance/income and better health knowledge or related sexual behaviours corroborates observations by Adebomi et al.,[60] who noted that financial stability and monthly allowance significantly influence the sexual health dynamics of Nigerian undergraduates. This economic correlation is likely tied to digital access. Because modern students primarily source health information from the internet and social media, those with higher monthly allowances can easily afford consistent data subscriptions, granting them uninterrupted access to online sexual health information. The difference in knowledge levels between those of high and low socio-economic status, could initiate a cascade whereby those of lower economic standing become more vulnerable to the effects of risky sexual behaviour, which could only be made worse by the fact that these group of people might not have the financial means they need to mitigate these effects, such as acquiring medical treatment.

While religious affiliation showed statistical significance, the severe imbalance in population distribution limits its interpretive value. Conversely, the specific university attended, the type of faculty (health versus non-health), and the place of residence did not significantly influence the students' baseline knowledge.

The final multivariable model identified five significant independent predictors of good knowledge: sex, institution, faculty type, level of study, and religion. The finding that UNIBEN students had significantly lower odds of good knowledge compared to BIU students is striking and unexpected, given that UNIBEN is a larger, more diverse institution. This may reflect differences in curriculum emphasis, class sizes affecting information retention, or sampling differences between the two institutions. Students in health-related faculties were over twice as likely to possess good knowledge than those in non-health disciplines, a finding that aligns with previous research demonstrating that formal reproductive health instruction significantly improves sexual health literacy.[4]

This study found that the majority of respondents exhibited a negative (protective) attitude towards risky sexual behaviour, while approximately one-fifth demonstrated a positive (risk-accepting) attitude. This favourable attitudinal profile is consistent with findings from a qualitative study among Nigerian tertiary students in Rivers State, where the majority of participants expressed negative attitudes towards RSB.[8] It also aligns with findings from an Iranian university study where students demonstrated predominantly negative attitudes toward sexual risk-taking.[39] However, the proportion of students with negative attitudes in this study is notably higher than that reported among South African university students,[4] suggesting that socio-cultural and religious contexts in Edo State may reinforce protective sexual attitudes more strongly than in some other settings.

At the item level, the study revealed several important attitudinal patterns. The vast majority of respondents held the protective attitude that they can refuse sex when they do not feel ready or safe, indicating high self-efficacy regarding sexual consent and autonomy. Furthermore, most respondents agreed that students should have easy access to accurate sexual health information and services, and the overwhelming majority recognized RSB as a serious health concern among undergraduates. These findings are consistent with studies from Ethiopia and South Africa where university students demonstrated strong recognition of sexual health risks and support for accessible sexual health services.[4,37]

However, a critical vulnerability emerged when transitioning from theoretical beliefs to practical, interpersonal negotiation. Only a minority of respondents felt confident negotiating condom use with a partner, leaving a substantial majority with a vulnerable stance. This finding is particularly concerning given the established relationship between condom negotiation self-efficacy and consistent condom use. Similar low confidence in condom negotiation has been reported among Nigerian and South African university students,[7,4] suggesting that this represents a widespread challenge across Sub-Saharan African tertiary institutions.

Additionally, normative peer beliefs and physical sensations demonstrated a highly divided consensus among the student body. Nearly half of the respondents held the vulnerable attitude that having multiple sexual partners is normal among students, and a substantial proportion failed to hold the correct protective attitude against the notion that condoms are unnecessary because they reduce sexual pleasure. These findings align with studies from Ethiopia and Tanzania where similar attitudinal barriers to condom use were documented.[2,37]

The analysis revealed that an individual's level of knowledge was the most profound determinant of their attitude. The majority of respondents with good knowledge held a negative attitude toward RSB, while only a slight majority of those with poor knowledge demonstrated a negative attitude. This finding is consistent with evidence suggesting that understanding and perceived seriousness of health risks are important determinants of protective attitudes.[44,27] The multivariable logistic regression confirmed that the respondent's level of knowledge was the sole independent predictor of their attitude. Students who demonstrated good knowledge regarding RSB were over six times more likely to hold a negative attitude toward risky sexual practices compared to students who possessed poor knowledge.

Among the socio-demographic and institutional variables, only the level of study demonstrated a statistically significant association with respondents' attitudes. Negative attitudes were highest among students in their final year and third year. Interestingly, 400-level students exhibited the highest proportion of positive (risk-accepting) attitudes. This pattern may reflect varying exposures to sexual health messaging, peer influences, and developmental stages across academic years. Notably, other socio-demographic characteristics, including age group, sex, institution of study, faculty type, religion, financial allowance, and place of residence, were not significantly associated with respondents' disposition towards risky sexual behaviour.

Overall, the protective attitudinal profile observed in this study suggests substantial recognition of sexual health risks among university students. From a public health perspective, this favourable disposition provides an important foundation for interventions aimed at translating protective attitudes into consistent safe sexual practices. However, the findings also highlight the critical need to address specific attitudinal vulnerabilities, particularly low confidence in condom negotiation and the normalization of multiple partnerships and transactional sex within campus peer networks.

This study found that approximately one-quarter of all respondents reported having ever engaged in sexual intercourse. This proportion is considerably lower than the 50.5% reported among South African health sciences university students,[4] the 56.8% reported among students at a private faith-based university in Osun State,[11] and the 88.5% reported among higher learning institution students in Tanzania.[2] The relatively lower lifetime sexual activity prevalence observed in this study may reflect the predominantly Christian and culturally conservative environment of Edo State, where abstinence until marriage remains a valued norm, particularly among female students. Additionally, the inclusion of a substantial proportion of students in early academic years (100 and 200 levels) may have contributed to the lower reported prevalence, as these younger students may have had fewer opportunities for sexual initiation.

Among the sexually active cohort, the mean age of sexual debut was approximately 18 years. While the majority initiated sexual activity at age 18 or older, a substantial proportion reported early sexual initiation prior to the age of 18. This mean age of debut is comparable to the 18.11 years reported among university students in Osun State,[43] and the 18.4 years reported among Tanzanian higher learning students,[2] but higher than the 16.66 years reported among Brazilian health sciences students.[41] The finding that nearly one-third of sexually active students initiated sexual activity before age 18 is concerning, as early sexual debut has been consistently associated with a higher lifetime number of sexual partners, reduced condom use consistency, and increased risk of STI acquisition.[3,44]

The study revealed alarmingly high engagement in risky sexual practices among sexually active respondents. Unprotected sex emerged as the most prominent risky practice, with the vast majority reporting a history of having sex without a condom. High-risk partnership dynamics were also highly prevalent; more than half reported having sex with a casual or uncommitted partner, and over one-fifth reported having multiple concurrent sexual partners within the same time period. These findings are consistent with the 82.0% prevalence of RSB among sexually active students reported in Osun State,[12] and the 87.4% prevalence of condomless sex among Nigerian undergraduates reported in earlier Edo-based studies.[7]

Substance use and transactional sex further complicated the risk profile. Nearly one in five sexually active students reported engaging in sex under the influence of alcohol, while a smaller proportion reported sex under the influence of drugs. Transactional sexual encounters were notably present, with respondents reporting exchanging sex for money, gifts, and academic grades. The presence of "sex for grades" is particularly concerning from an institutional ethics perspective and aligns with findings from Nigerian studies documenting the commodification of sex as a coping mechanism for economic vulnerability.[8,11]

The data also revealed concerning rates of sexual coercion within the population. A notable proportion of sexually active respondents reported having been coerced into sex, while a smaller proportion admitted to having coerced someone else into a sexual encounter. These findings align with studies from Osun State where coercion was reported by approximately 13–14% of sexually active students,[43] and from Tanzania where approximately 10% reported forced sex by someone they were dating.[2]

Regarding recent (12-month) prevalence among sexually active respondents, nearly three-quarters reported engagement in sexual intercourse within the past year, indicating a highly active population. Among those recently active, the mean number of sexual partners was low, and the vast majority limited their sexual network to two or fewer partners during this timeframe. However, a high-risk subset of approximately one in seven reported having more than two partners. Furthermore, partnership stability was low, with over half reporting sexual encounters with a casual or uncommitted partner, and one-quarter reporting concurrent sexual relationships.

The data revealed that more than half of recently active respondents reported failing to use a condom during their most recent sexual encounter. When evaluating long-term consistency over the past year, only a small minority reported never having sex without a condom, indicating that the overwhelming majority of the active student population engaged in condomless sex at least occasionally. Consistent condom use in this study was comparable to the 46.2% reported in Osun State,[43] but higher than the 33% among males and 16.5% among females reported in Tanzania,[2] and the 19.3% among females and 3.9% among males reported in Brazil.[41] The persistently low rates of consistent condom use across multiple settings suggest that this remains a critical global challenge in adolescent and young adult sexual health.

Additional sexual risky practices remained present within the 12-month timeframe, though at slightly lower prevalence than the lifetime data. Transactional sexual encounters were reported, including exchanging sex for money, gifts, and academic grades. Concerningly, recent sexual coercion remained a localized threat, with a small proportion of active respondents reporting having been coerced into sex within the past year. Only a small minority of recently active respondents navigated the past 12 months without engaging in any defined risky sexual behaviours.

The bivariate analysis revealed that three variables were significantly associated with the lifetime prevalence of RSB: place of residence, age at sexual debut, and level of knowledge. A vast majority of students residing off-campus had engaged in RSB, compared to approximately four-fifths of those residing in on-campus hostels. This finding aligns with studies from Ethiopia where students living without family or institutional supervision were nearly 10 times more likely to engage in RSB,[47] and from Nepal where off-campus residence was associated with higher sexual risk-taking.[45] The off-campus environment, characterized by the absence of institutional curfews, reduced social surveillance, and greater privacy, appears to create conditions that facilitate engagement in risky sexual practices.

Age at sexual debut significantly influenced lifetime prevalence; respondents who initiated sexual activity before the age of 18 reported a higher prevalence of RSB compared to those who debuted at 18 years or older. This finding is consistent with studies from Colombia and Ethiopia where early sexual debut was associated with higher lifetime risk scores and greater engagement in risky practices.[44,47] The mechanism underlying this association likely involves the accumulation of sexual partners and risk exposures over a longer period, as well as the developmental context of early initiation, which may occur before adequate sexual health knowledge and negotiation skills have been acquired.

The respondent's level of knowledge regarding reproductive health was significantly associated with lifetime RSB. Students who demonstrated poor knowledge had a substantially higher prevalence of RSB compared to their peers with good knowledge. This finding aligns with the theoretical framework of the Information-Motivation-Behavioral Skills model, which posits that accurate information is a prerequisite for protective sexual behaviour.[23] However, the direction of this association cannot be definitively established from cross-sectional data; while poor knowledge may increase risk-taking behaviour, engagement in high-risk behaviour may also precede and potentially limit the acquisition of accurate sexual health information.

When assessing the recent prevalence of RSB among sexually active respondents, the drivers shifted. Sex emerged as the sole statistically significant factor. A significantly higher proportion of male respondents reported engaging in recent RSB compared to female respondents. This gender disparity aligns with findings from South Africa where males reported higher rates of multiple partnerships and commercial sex,[4] from Nepal where male gender was associated with over three times higher odds of RSB,[45] and from Colombia where males had significantly higher risk scores.[44] The observed gender difference may reflect differential social norms regarding sexual behaviour, with male sexual activity being more socially accepted and therefore more openly reported, while female sexual activity may be subject to greater social desirability bias and underreporting.

Interestingly, variables that were significantly associated with lifetime prevalence, such as place of residence, level of knowledge, and age at sexual debut, were not statistically significant predictors of recent RSB. This suggests that while these factors influence whether an individual ever engages in risky sexual practices over their lifetime, the continuation or frequency of such behaviours in the recent past may be driven more by immediate contextual factors and gender dynamics.

The multivariable logistic regression for lifetime prevalence revealed that four variables acted as highly significant independent predictors of RSB. Cognitive awareness exhibited the most profound magnitude of risk; undergraduates demonstrating poor reproductive health knowledge were over 50 times more likely to engage in high-risk sexual practices compared to their peers with good knowledge. This striking odds ratio, while large, reflects the fundamental importance of accurate information in enabling protective behaviour, as posited by the Health Belief Model and the Information-Motivation-Behavioral Skills model.[20,23]

Environmental autonomy also proved to be a critical catalyst. Students residing in off-campus accommodations were nearly 18 times more likely to engage in RSB compared to those living within the regulated environment of on-campus hostels. This finding underscores the protective function of institutional supervision and the risk-amplifying effect of autonomous living arrangements, consistent with studies from Ethiopia and Nepal.[45,47] Furthermore, early sexual initiation significantly elevated long-term risk trajectories, with respondents who debuted before the age of 18 being nearly nine times more likely to report lifetime RSB than those who debuted at 18 years or older.

Conversely, attitude emerged as a robust protective factor within the tertiary ecosystem. Students holding a positive attitude towards safe sexual practices experienced a 96% reduction in the odds of engaging in RSB compared to those harbouring negative attitudes. This finding aligns with the Theory of Planned Behavior, which posits that attitude toward a behaviour is a key determinant of behavioural intention and subsequent action.[21] When controlling for these variables, foundational demographic and economic factors, including age group, sex, faculty type, financial vulnerability, and overall level of study, failed to independently predict RSB.

The multivariable logistic regression for recent prevalence identified three significant independent predictors. Biological sex emerged as the strongest determinant, with female undergraduates demonstrating an 89% reduction in the odds of engaging in recent RSB compared to their male counterparts. Environmental autonomy remained a significant risk catalyst; students residing off-campus were more than four times as likely to engage in recent RSB compared to those in on-campus hostels. A positive cognitive disposition served as a significant protective factor; students exhibiting a positive attitude towards reproductive health experienced an 81% reduction in the odds of engaging in recent RSB. Notably, while poor reproductive knowledge demonstrated a substantial adjusted odds ratio, its wide confidence interval rendered it a borderline, non-significant predictor in the recent prevalence model.

This study identified several perceived factors that influence engagement in risky sexual behaviour among respondents, as reported in the descriptive analysis. Substance use and social influence were identified as the most prominent factors, with near-universal agreement that alcohol or drug use increases the likelihood of unsafe sexual practices, and that peer pressure plays a significant role. These findings are consistent with studies from Ethiopia, where alcohol use was associated with over nine times higher odds of RSB,[47] and from Nigeria, where peer pressure and substance use were identified as primary drivers of risky sexual practices among undergraduates.[8,11]

Structural and socioeconomic factors were highly recognized, with the vast majority agreeing that poor access to sexual health information contributes to RSB, and that financial difficulties can heavily influence sexual decision-making. The recognition of financial difficulties as a driver aligns with findings from Nigerian studies where economic vulnerability and the pursuit of financial gains were identified as significant factors influencing transactional sex.[11,12]

The influence of media and psychological well-being was also strong. A majority agreed that exposure to sexual content in the media and emotional or psychological distress increase the likelihood of engaging in RSB. Relational dynamics were shown to impact protective measures, as three-quarters of students agreed that the fear of losing a partner could make one susceptible to risky sexual behaviour. Regarding environmental and institutional factors, nearly two-thirds of respondents identified living off-campus as a risk factor for risky sexual practices. Notably, respondents were highly divided on the institutional support available to them; only a slight majority agreed that adequate institutional training on sexual health behaviour is available, while a substantial proportion felt that such training is inadequate.

However, bivariate analysis revealed that across all evaluated perceived factors, none demonstrated a statistically significant association with either lifetime or recent RSB. The data reveals a consistent pattern: what undergraduates perceive as the theoretical or societal drivers of risky sexual practices does not statistically correlate with their actual reported conduct. While the associations were statistically insignificant, specific emotional and relational vulnerabilities approached borderline significance when evaluating long-term behavioural histories. The perception that the fear of losing a partner complicates condom negotiation trended strongly toward significance for lifetime RSB. Similarly, the belief that emotional or psychological distress increases risky sexual behaviour exhibited borderline significance.

Notably, however, the statistical weight of these relational and emotional factors diminished entirely when assessed against recent behavioural prevalence. This indicates that while emotional vulnerabilities may play a theoretical role in the broader, lifetime accumulation of sexual risk, they are not immediate, short-term drivers of recent risky sexual behaviour among the study population.

The multivariate logistic regression confirmed that none of the perceived psychosocial or environmental factors emerged as statistically significant independent predictors of either lifetime or recent RSB. While the perception that fear of losing a partner complicates condom negotiation was retained in the final iteration of the lifetime model, it remained a borderline, non-significant factor. Consequently, students' cognitive perceptions regarding the societal drivers of RSB do not independently predict their actual engagement in such behaviours. This finding has important implications for intervention design, suggesting that targeting perceived risk factors through awareness campaigns alone may be insufficient to change behaviour, and that interventions must address the actual, rather than perceived, determinants of risky sexual practices.

5.2 Conclusion

This study found that the majority of undergraduate students demonstrated good knowledge of risky sexual behaviour, although knowledge gaps persisted regarding complex forms of RSB such as transactional sex and coercion, as well as critical misconceptions about emergency contraception. Academic progression, health-related faculty enrolment, and female sex were associated with better knowledge, suggesting that formal reproductive health instruction and targeted information dissemination for male students could further improve sexual health literacy.

Attitudes toward risky sexual behaviour were predominantly protective, with the majority of students recognizing RSB as a serious health concern and demonstrating high self-efficacy regarding sexual refusal. However, critical attitudinal vulnerabilities emerged, particularly low confidence in condom negotiation and the normalization of multiple partnerships. Knowledge was the strongest independent predictor of protective attitudes, indicating that improving sexual health literacy may directly improve attitudinal dispositions toward safe sexual practices.

The prevalence of risky sexual behaviour among sexually active students was alarmingly high, with the vast majority engaging in unprotected sex, casual partnerships, and transactional sex at least once in their lifetime. Recent prevalence remained elevated, with the overwhelming majority of active students engaging in condomless sex within the past year. While lifetime sexual activity prevalence was lower than in some other settings, the intensity of risk-taking among those who are sexually active is concerning from a public health perspective.

Off-campus residence, early sexual debut, poor knowledge, and negative attitudes emerged as the strongest independent predictors of lifetime RSB, while male sex, off-campus residence, and negative attitudes predicted recent RSB. These findings highlight that environmental autonomy, cognitive factors, and gender dynamics are more influential than demographic characteristics alone in shaping risky sexual practices.

Notably, while students identified peer pressure, substance use, financial difficulties, and media exposure as important perceived drivers of RSB, these perceptions did not statistically predict actual behaviour. This disconnect between perceived and actual determinants suggests that interventions based solely on student-reported risk factors may miss the true drivers of risky sexual practices.

Overall, this study reveals a concerning paradox: undergraduate students in Edo State possess good knowledge and predominantly protective attitudes toward risky sexual behaviour, yet a substantial proportion of sexually active students continue to engage in high-risk practices. This knowledge-attitude-practice gap represents the central challenge for sexual health promotion in tertiary institutions. From a public health perspective, bridging this gap will require more than awareness campaigns; it will demand interventions that address environmental vulnerabilities (particularly off-campus living), improve condom negotiation self-efficacy, target male students disproportionately, and strengthen institutional support systems for sexual and reproductive health.

5.3 Recommendations

To the Federal Ministry of Health / National Universities Commission (NUC)

1. Mandate the integration of comprehensive, skills-based sexual health education into the core curriculum for all undergraduate students across Nigerian universities. The curriculum must move beyond biological facts to include practical condom negotiation skills, transactional sex awareness, and emergency contraception literacy, directly addressing the knowledge gaps identified in this study.

2. Develop and disseminate national guidelines for university-based sexual and reproductive health services, including the establishment of youth-friendly health corners within all tertiary institution clinics, offering confidential STI screening, contraception provision, and counselling services at reduced or no cost to students.

3. Collaborate with the National Agency for the Control of AIDS (NACA) and state ministries of health to implement targeted, peer-led sexual health interventions specifically designed for male students, given the finding that male sex was independently associated with higher recent RSB prevalence and poorer knowledge.

4. Establish a funding mechanism for research into effective interventions addressing the knowledge-attitude-practice gap among Nigerian university students, with particular emphasis on off-campus student populations who demonstrate significantly higher risk profiles.

To University Management (UNIBEN, BIU, and other tertiary institutions in Edo State)

1. Strengthen on-campus accommodation facilities and policies to encourage student residence within the regulated campus environment, given that off-campus living was associated with nearly 18 times higher odds of lifetime RSB and 4 times higher odds

of recent RSB. Where off-campus residence is unavoidable, establish outreach programmes that deliver sexual health services to off-campus student communities.

2. Establish mandatory, age-appropriate sexual health and life skills training for all incoming first-year students during orientation week, before many students initiate sexual activity or establish risk-taking patterns. This training should specifically address condom negotiation self-efficacy, the recognition of coercion, and the risks associated with transactional sex.

3. Train and deploy peer health educators across all faculties to normalize conversations about safe sexual practices, challenge the normalization of multiple partnerships, and provide accurate information about emergency contraception and STI prevention.

4. Strengthen university counselling and health centre capacity to provide confidential, non-judgmental sexual and reproductive health services, including free or low-cost condoms, emergency contraception, STI screening, and post-exposure prophylaxis following coerced sexual encounters.

5. Collaborate with student union governments to develop and enforce clear institutional policies against sexual coercion and "sex for grades," with accessible reporting mechanisms and protection for survivors.

To Individual Students / Undergraduates

1. Actively seek accurate sexual health information from verified sources (university health centres, peer educators, WHO/NACA materials) rather than relying exclusively on social media or peer networks, which may disseminate incomplete or inaccurate information.

2. Develop and practise condom negotiation skills with partners prior to sexual situations, recognizing that condom use is a shared responsibility that protects both partners from STIs and unintended pregnancies. Students should internalize that requesting condom use is not a sign of distrust but rather a marker of mutual respect and health consciousness.

3. Critically evaluate the normalization of multiple partnerships, transactional sex, and substance-involved sex within campus peer networks. Students should recognize that perceived peer norms often overestimate actual engagement in risky practices and that protective behaviours are more common than campus culture may suggest.

4. Utilize university counselling and health services for sexual health concerns, STI screening, and contraceptive needs without fear of judgment or disclosure. Early help-seeking is particularly important given that many STIs can be asymptomatic and that unintended pregnancy can derail academic trajectories.

5. Support peers in making safe sexual choices by refusing to pressure partners, respecting sexual refusal, and avoiding the stigmatization of students who choose abstinence or consistent condom use. Collective peer norms can shift the campus culture away from risk normalization.

6. While sexual activity is a normal aspect of young adult development, students must prioritize their health and academic futures by consistently using condoms, limiting sexual partners, avoiding substance-involved sex, and promptly seeking care for any concerning symptoms or exposures.

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APPENDIX

INFORMED CONSENT FORM

TITLE OF STUDY: ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONGST UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE
INVESTIGATOR: IBUDE OSARUMEN MARVIS

SUPERVISOR: Prof. Andrew I. OBI

FINANCIAL SPONSORSHIP: This research project is self-sponsored.

PURPOSE OF THE STUDY: The purpose of this study is to investigate the knowledge, attitude, prevalence of risky sexual behavioural practices amongst undergraduate students in tertiary institutions in Edo State, as well as the factors affecting the involvement in risky sexual behavioural practices.

PROCEDURES INVOLVED IN THE STUDY:
You are requested to complete a structured, self-administered questionnaire designed to assess your socio-demographic characteristics, knowledge, attitudes, and involvement in risky sexual behavioural practices. The questionnaire will also determine your perceived factors influencing involvement in risky sexual behavioural practices. The information collected will be used strictly for academic and research purposes.

COMPENSATION
There will be no financial compensation for participating in this study.

VOLUNTARY PARTICIPATION
Participation in this study is entirely voluntary. You are free to decline participation or withdraw at any time without any penalty, loss of benefits, or discrimination.

RISKS/SIDE EFFECTS
There are no anticipated risks or side effects associated with participating in this study.

BENEFITS
This study aims to provide data on the involvement of undergraduate students in risky sexual behavioural practices for the purpose of improving reproductive health behaviour amongst undergraduate students.

CONFIDENTIALITY
All information provided will be treated with strict confidentiality. Names or personal identifiers will not be collected. Data will be stored securely and used solely for research purposes.

CONSENT

By completing and submitting this questionnaire, you confirm that you have read and understood the information above and voluntarily agree to participate in this study.

CONTACT INFORMATION:
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Tel: +23470532124223
Ethics and Research Committee
University of Benin Teaching Hospital Benin City
Tel: +2347063331337

CERTIFICATE OF CONSENT
I have read the above information (or it has been read to me). I had the opportunity to ask questions and the questions were answered to my satisfaction.
I voluntarily consent to take part in this study.
Signed_________________

QUESTIONNAIRE

DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, UNIVERSITY OF BENIN, BENIN CITY

ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONG UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE

Dear respondents,

I am a 600-level medical student of the University of Benin, conducting a research project on risky sexual behavioural practices among undergraduate students in tertiary institutions in Edo State. Kindly complete this questionnaire. Your responses will be treated with strict confidentiality and used strictly for academic purposes. Participation is voluntary.

Thank you.

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

1. Age (in years, as at last birthday): _____________
2. Sex: Male ( ) Female ( )
3. Institution: UNIBEN ( ) BIU ( )
4. Level of study: 100 ( ) 200 ( ) 300 ( ) 400 ( ) 500 ( ) 600 ( )
5. Faculty: ___________________________
6. Department_________________________
7. Marital status: Single ( ) Married ( ) Cohabiting ( ) Separated/Divorced ( ) Others (Specify): ___________
8. Religion: Christianity ( ) Islam ( ) African Traditional Religion ( ) Others (Specify): ___________
9. Place of residence during session: On-campus ( ) Off-campus ( )
10. Average monthly allowance/income:
    (a) < ₦20,000 ( )
    (b) ₦20,000–₦50,000 ( )
    (c) ₦50,001–₦100,000 ( )
    (d) > ₦100,000 ( )

SECTION B: KNOWLEDGE OF RISKY SEXUAL BEHAVIOURAL PRACTICES

11. Have you heard of "risky sexual behaviour" before?
    (a) Yes (b) No
    If No, skip to Section C
12. What is your main source of information on risky sexual behaviour ? (multiple response question)
    (a) School lectures ( )
    (b) Health workers ( )
    (c) Friends ( )
    (d) Social media ( )
    (e) Internet ( )
    (f)Television ( )
    (g) Radio ( )
    (h) journals ( )
13. Risky sexual behaviour is best described as:
    (a) Sexual practices that increase the risk of adverse sexual and reproductive health outcomes ( )

(b) Any sexual activity among young people ( )
(c) Sexual activity outside marriage only ( )
(d) Sexual activity for pleasure only ( )

14. Which of the following are recognised risky sexual behaviours? (Select all that apply)
(a) Multiple sexual partners ( )
(b) Unprotected sex ( )
(c) Sex under the influence of alcohol/drugs ( )
(d) Transactional sex ( )
(e) Early sexual debut ( )
(f) Consistent condom use ( )
(g) Abstinence ( )
(h) Mutual monogamy ( ) (i)
(i) Coerced Sex ( )

15. What are the possible effects of risky sexual behaviour? (Select all that apply)
(a) Sexually transmitted infections (STIs) ( )
(b) Unintended pregnancy ( )
(c) Infertility ( )
(d) HIV infection ( )
(e) Psychological distress ( )
(f) Improved academic performance ( )
(g) Strengthened immune system ( )
(h) No health consequences ( )

16. Which of the following strategies can help mitigate the effects of risky sexual behaviour? (Select all that apply) (a)
Ignoring symptoms until they resolve spontaneously ( )
(b) Consistent condom use ( )
(c) Regular screening for STIs ( )
(d) Avoiding discussion of sexual health with partners ( )
(e) Comprehensive sexual health education ( )
(f) Reliance on emergency contraception as a primary prevention method ( )
(g) Limiting the number of sexual partners ( )
(h) Prompt treatment of diagnosed infections ( )

17. Unprotected sexual intercourse increases the risk of sexually transmitted infections because it:
(a) Allows direct exchange of body fluids ( )
(b) Occurs mainly among young people ( )
(c) Happens outside marriage ( )
(d) Reduces emotional bonding ( )

18. Correct and consistent condom use reduces sexual health risks by:
(a) Preventing contact with infectious body fluids ( )
(b) Delaying sexual initiation ( )
(c) Improving fertility ( )
(d) Increasing sexual pleasure ( )

19. Alcohol or drug use before sex increases sexual risk mainly because it:
(a) Impairs judgement and decision-making ( )
(b) Increases physical strength ( )
(c) Delays orgasm ( )
(d) Improves communication ( )

20. Having more than one sexual partner increases sexual health risk due to:
    (a) Increased exposure to infections ( )
    (b) Emotional attachment ( )
    (c) Longer relationship duration ( )
    (d) Improved trust ( )
21. Emergency contraception:
    (a) Prevents pregnancy but not sexually transmitted infections ( )
    (b) Prevents both pregnancy and infections ( )
    (c) Is effective against all STIs ( )
    (d) Should replace condom use ( )
22. A person with a sexually transmitted infection may have no symptoms because:
    (a) Some infections can be asymptomatic ( )
    (b) Symptoms only occur in women ( )
    (c) Symptoms appear immediately after sex ( )
    (d) Symptoms only occur in older adults ( )

SECTION C: ATTITUDE TOWARDS RISKY SEXUAL BEHAVIOURAL PRACTICES

Please pick one answer per row, where SA = strongly agree, A = agree, N = Neutral, D = disagree, SD = strongly disagree

S/N	STATMENT	SD	D	N	A	SA
23	It is acceptable to have sex without a condom if partners "trust" each other.					
24	Having multiple sexual partners is normal among students.					
25	Condoms reduce sexual pleasure, so they are not necessary.					
26	I feel confident negotiating condom use with a partner.					
27	Refusing unsafe sex can damage a relationship.					
28	Alcohol/drug use before sex increases the likelihood of unsafe practices.					
29	Transactional sex is sometimes necessary due to financial benefits					
30	Students should have easy access to accurate sexual health information and services.					
31	Risky sexual behaviour is a serious health concern among undergraduates.					
32	I can refuse sex when I do not feel ready or safe.					
33	My cultural practices discourage engagement in risky sexual behaviour.					
34	My religious beliefs discourage engagement in risky sexual behaviour.					

SECTION D: PREVALENCE OF RISKY SEXUAL BEHAVIOURAL PRACTICES

35. Have you ever had sexual intercourse?
(a) Yes ( )   (b) No ( )
36. What type of sexual Intercourse?
(a) Vaginal ( ) (b) Anal ( ) (c) Oral
If No, skip to Section E. (Question 44)

37. Age at first sexual intercourse: _______________

38. Have you ever experienced any of the following? (Select all that apply)
(a) Sex with Casual/Uncommitted partner ( )
(b) Exchanged sex for money ( )
(c) Exchanged Sex for gifts or favours ( )
(d) Exchanged sex for grades ( )
(e) Had sex without a condom ( )
(f) Had more than one sexual partner within the same period ( )
(g) Experienced coerced sex ( )
(h) Had sex under the influence of alcohol ( )
(i) Had sex under the influence of drugs ( )
(j) None of the above ( )

39. Have you had sexual intercourse (vaginal or anal) in the last 12 months?
(a) Yes ( )   (b) No ( )
If No, skip to Section E. (Question 44)
40. Number of sexual partners in the last 12 months: ____________
41. Condom use during last sexual intercourse:
(a) Used condom ( )
(b) Did not use condom ( )
42. In the last 12 months, how often did you have sex without a condom?
(a) Never ( )
(b) Rarely ( )
(c) Sometimes ( )
(d) Most times ( )
(e) Always ( )

43. In the last 12 months, have you experienced any of the following? (Tick all that apply)
(a) Sex with Casual/Uncommitted partner ( )
(b) Exchanged sex for money ( )
(c) Exchanged Sex for gifts or favours ( )
(d) Exchanged sex for grades ( )
(e) Had sex without a condom ( )
(f) Had more than one sexual partner within the same period ( )
(g) Experienced coerced sex ( )
(h) Had sex under the influence of alcohol ( )
(i) Had sex under the influence of drugs ( )
(j) None of the above ( )

SECTION E: FACTORS INFLUENCING RISKY SEXUAL BEHAVIOURAL PRACTICES

S/N	**STATMENT**	**YES**	**NO**
44	Peer pressure influences risky sexual behaviour among students.		
45	Alcohol or drug use increases the likelihood of unsafe sexual practices		

46	Financial difficulties can influence sexual decision-making.		
47	Fear of losing a partner makes condom negotiation difficult.		
48	Living off-campus increases exposure to risky sexual practices.		
49	Poor access to sexual health information contributes to risky sexual behaviour.		
50	Exposure to sexual content in media influences students' sexual behaviour.		
51	Emotional stress or psychological distress can increase risky sexual behaviour.		
52	Adequate institutional training is available on sexual health behaviour.		

THANK YOU

ETHICAL APPROVAL

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

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DIRECTOR OF ADMINISTRATION Jim Uwadie, Esq

CHAIRMAN Prof. (Mrs.) Antoinette N. Ofili

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Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/14865491272

PROPOSAL TITLE: "ASSESSMENT OF RISKY SEXUAL BEHAVIOURAL PRACTICES AMONGST UNDERGRADUATE STUDENTS IN TERTIARY INSTITUTIONS IN EDO STATE"

PRINCIPAL INVESTIGATOR(S): IBUDE OSARUMEN MARVIS

DEPARTMENT/INSTITUTION: DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

DATE CONSIDERED: MARCH 18TH, 2026

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 18/03/2026 TO 17/03/2027. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI **SIGNATURE & DATE** 18/3/2026

SUPERVISOR (S): PROF A.I. OBI

DECLARATION BY INVESTIGATOR(S):

PROTOCOL NUMBER (please quote in all enquiries)

Note that no participant accrual or activity related to this research may be conducted outside of these dates and you **are to furnish the committee with the research activities at the completion of the study.** All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signature & Date................................

ubthresearchethics@gmail.com

Registration Number: NHREC/24/01/2020