PREVALENCE AND PATTERN OF ABORTION AMONG FEMALE UNDERGRADUATES OF UNIVERSITY OF BENIN

BY

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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 REQUIREMENTS FOR THE AWARD OF BACHELOR IN MEDICINE AND BACHELOR OF SURGERY (MBBS) DEGREE IN THE UNIVERSITY OF BENIN, BENIN CITY

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DEDICATION

This work is dedicated to God Almighty, for the grace and mercies he granted unto me from the beginning of this project till its completion

I also extend this dedication to my beloved family, friends and colleagues

ACKNOWLEDGEMENTS

I am profoundly grateful to Almighty God, the giver of life, wisdom, and strength, whose grace has sustained me throughout the course of this work. Without His guidance and blessings, this project would not have been possible.

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I owe special gratitude to my beloved parents, **Mr Okunrobo Samuel Osarobo** and **Mrs Osarobo Patience**, for their unwavering love, prayers, encouragement, and sacrifices towards my education. To my siblings and family members **Andrew, Jude** and **Adesuwa**. I am deeply thankful for your continuous support and inspiration.

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DECLARATION

I hereby declare that this project work titled "Prevalence and Pattern of Abortion among Female Undergraduates of University of Benin, Edo State" will be conducted under supervision and has not been submitted in part or full for any purpose.

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CERTIFICATION

This is to certify that this research work titled **"Prevalence and Pattern of Abortion among Female Undergraduates of University of Benin, City, Edo state"** will be conducted by OSAROBO Jessica Osamudiamen with matriculation number MED1606130 under supervision of **PROF. Omokhoa Adeleye** in the Department of Public Health and Community Medicine, School of 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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LIST OF ABBREVIATION

AIDS – Acquired Immune Deficiency Syndrome

CI – Confidence Interval

D&C – Dilatation and Curettage

HIV – Human Immunodeficiency Virus

IUCD – Intrauterine Contraceptive Device

MBBS – Bachelor of Medicine, Bachelor of Surgery

MVA – Manual Vacuum Aspiration

SD – Standard Deviation

SPSS – Statistical Package for the Social Sciences

STI – Sexually Transmitted Infection

UNIBEN – University of Benin

WHO – World Health Organization

DEFINITION OF TERM

Abortion: the deliberate termination of a pregnancy, most often performed during the first 28 weeks of pregnancy,

Contraceptives: the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures.

ABSTRACT

Background: Abortion remains a significant public health concern, especially among young women of reproductive age in developing countries where access to reproductive health services is limited and social stigma is pervasive. Female undergraduates are particularly vulnerable due to early sexual debut, inadequate contraceptive use, and socio-cultural pressures. This study assessed the prevalence and patterns of abortion among female undergraduates at the University of Benin, Edo State.

Methods: A cross-sectional study design was employed. Data were obtained from 550 randomly selected female undergraduates across eight faculties and eight departments using structured questionnaires. Information collected included socio-demographic characteristics, sexual and reproductive history, contraceptive use, and abortion experiences. Data were analysed using descriptive statistics and Chi-square tests with SPSS version 23.0, with significance set at $p < 0.05$.

Results: A total of 550 respondents participated, yielding a 100% response rate. The mean age was 22.3 ± 3.5 years, with the majority aged 20–24 years. About 30% reported previous pregnancy, and all such cases ended in abortion. Most abortions were performed in hospitals (37.6%) and chemist shops (31.5%), predominantly during the first trimester (93.9%). Doctors (57.6%) and chemists (29.1%) were the main providers. Male condoms (25.6%) were the most frequently used contraceptive, mainly sourced from pharmacies. A significant association was found between contraceptive use and prevalence of abortion ($p < 0.05$). Cultural and religious beliefs, as well as partner involvement in decision-making, also influenced abortion and contraceptive practices.

Conclusion: Abortion is prevalent among female undergraduates of the University of Benin, with most procedures occurring under medical supervision but a substantial proportion still being unsafe. Improving access to reproductive health education, contraception, and safe abortion services is essential to reduce associated risks and complications.

Keywords: Abortion, Contraceptives, Female Undergraduates, University of Benin, Unsafe Abortion

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Single females are a critical group in the subject of female reproductive health. This is because they bear some of the burdens morbidities and the risk of maternal deaths. Many single girls undergo unsafe induced abortion when they have unwanted pregnancies. Thus, abortion remains a significant public health issue globally and is particularly relevant among young women of reproductive age, including undergraduates. Abortion has been practiced for as long as pregnancy existed and it poses a hazard to women's health and social lives; it is a major cause of maternal mortality globally.[1] Bobo et al observed that a number of women of reproductive age died daily because of complications arising from unsafe abortion throughout the world; the majority of this occurred in developing countries; many of them are young age, maybe in the university, and are likely to have poor knowledge of safe abortion.[2] The risk of unplanned pregnancy and unsafe abortion is higher among undergraduates especially those who do not live within the campus and cohabit with the opposite sex.[3] Also, availability of contraception services may be less available to unmarried women due to the cultural norms against premarital sexual activity.

Abortion among female undergraduates has emerged as a pressing public health and socio-cultural concern, particularly in developing countries where access to reproductive health services is limited and social stigma remains pervasive.[4] In university environments, where young women experience increased independence, exposure to new social networks, and often engage in unprotected or premarital sexual relationships, the incidence of unintended pregnancies tends to rise. Consequently, many female students resort to abortion, frequently

in unsafe or clandestine conditions due to restrictive abortion laws and limited access to professional care.[5]

The prevalence of abortion among female undergraduates varies widely depending on regional, cultural, and religious contexts.[6] Studies conducted in various Nigerian universities, for instance, reveal a high rate of induced abortion, driven by factors such as fear of academic disruption, parental disappointment, economic dependency, and lack of access to contraceptives. Many of these abortions are performed secretly, often by unqualified individuals or through the use of unregulated drugs, increasing the risks of complications, infections, and even death among university female students.

Naturally, universities are established for career, personal and societal growth. Despite these three purposes, University education in Nigeria is full of maladaptive behavior.[7] This is due to that fact that most undergraduates are mainly youths, between 18-21 years upon their entrance into the university, of different universities Nigeria.[8] These undergraduates engage in social vices such as: prostitution, abortion, cultism, examination malpractice, stealing, killings, cohabitation e.t.c.[9] The most disturbing of all these vices is unsafe abortion.

Patterns of abortion among this demographic group revealed significant trend. According to Zia et al, abortions are more common among students in their early twenties, often occur in secret, and are rarely followed by professional post-abortion care.[10] The decision-making process is influenced by peer pressure, misinformation, and lack of emotional and financial support. Furthermore, the stigma surrounding premarital pregnancy leads many students to avoid hospitals, thereby perpetuating the cycle of unsafe abortion.[11]

1.2 Statement of the Problem

The increasing prevalence and alarming pattern of abortion among female undergraduates present a significant public health and social issue in many developing countries, including Nigeria.[12] According to a study by Akintayo et al, 60.8% of female undergraduate students in Southwest Nigeria were currently engaged in sexual activity.[13] The average age at which sexual activity began was 19.1 years. Approximately 36% of sexually exposed people had many sexual partners. University students are in a unique position to serve as role models for other young people, including teenagers. As such, their understanding of safe abortion practices and their predicament with regard to unintended pregnancies may provide insight into the larger youth population.

Despite advances in education and awareness, many young women in tertiary institutions continue to face challenges related to reproductive health, particularly regarding unintended pregnancies and unsafe abortions.[14] These students, often between the ages of 18 and 25, are at a vulnerable stage of life, where peer influence, lack of parental supervision, misinformation, and limited access to contraceptives significantly affect their sexual and reproductive decisions.[15]

The clandestine nature of abortion among female undergraduates is exacerbated by restrictive abortion laws, fear of societal stigma, and inadequate youth-friendly health services.[16] As a result, many students resort to unsafe abortion methods, often facilitated by unqualified individuals or through the misuse of over-the-counter medications.[17] Bankole et al posited that abortion do not only endangers young women physical health leading to complications such as infections, infertility, and death but also affects their psychological and emotional well-being, academic performance and social stability.[18]

Furthermore, there is limited empirical data on the specific patterns of abortion among this group, including the frequency, decision-making process, sources of abortion services, and

post-abortion experiences. This gap in knowledge hampers the development of effective policies and interventions. Therefore, it is crucial to examine the prevalence and patterns of abortion among female undergraduates in order to inform stakeholders; government agencies, educational institutions, healthcare providers, and NGOs on the need for improved reproductive health education, access to safe abortion care and targeted support systems for female undergraduate students, also to identify the factors associated with access to contraceptives, abortion practices and partner communication.

1.3 Research Question

This study has the following research questions:

Among female undergraduates of the University of Benin,

1. What are the prevalence and patterns of abortion?
2. What is the relationship between the contraceptives use and prevalence of abortion?
3. What is the level of sexual partner communication on contraceptive and abortion practices?
4. What is the knowledge and attitude towards to the use of contraceptives?

1.4 Aims and Objectives

General Objective

The aim of the study is to assess the prevalence and pattern of contraceptive use, abortion and partner communication and their associated factors.

Specific Objectives

Among the female undergraduates of the University of Benin;

1. To determine the prevalence and patterns of abortion.
2. To determine the relationship between the contraceptives use and prevalence of abortion.
3. To assess the level of sexual partner communication on contraceptive and abortion practices.
4. To identify the level of knowledge and attitude towards to the use of contraceptives?

1.5 Significance of the Study

The significance of this research cannot be overstated. It will aid in comprehending the negative impact of abortion in Nigeria. This study is necessary in order to provide the healthcare services with recommendations on how to combat the threat of unsafe abortion in the university and the nation at large. This research has practical implications, particularly in terms of policymaking. It will empower policymakers to create regulations that deter death from abortion among female undergraduates.

The study on the prevalence and patterns of abortion among undergraduates is significant for several reasons. Firstly, the study will shed light on a critical public health issue affecting young women in tertiary institutions, many of whom are at high risk of unintended pregnancies due to limited access to contraceptives, inadequate sexual education, and societal stigma surrounding reproductive health. Understanding how widespread abortion is among undergraduates and the common methods or circumstances under which it occurs can help identify gaps in healthcare delivery and policy enforcement.

Secondly, the study will provides valuable data that can guide interventions aimed at reducing unsafe abortions, which remain a major cause of maternal morbidity and mortality in developing countries. It also informs university health services, non-governmental

organizations, and policymakers on the need to establish youth-friendly reproductive health services and comprehensive sexuality education.

Furthermore, the study will highlight the social and emotional challenges faced by female undergraduates, including the role of peer pressure, partner influence, and fear of academic or parental consequences. By examining these dynamics, stakeholders can design targeted awareness campaigns, counseling services, and support systems to empower young women to make informed reproductive choices. Ultimately, the study will contribute to promoting the health, rights, and educational continuity of female students. Finally, the study will also provide insight to the avalanche of literature the abortion among undergraduates and how it can be curbed.

1.6 Scope of the Study

This study on the prevalence and pattern of abortion among female undergraduates of Benin City will be conducted among female undergraduates at University of Benin, Benin City.

CHAPTER TWO

LITERATURE REVIEW

2.1 The Prevalence and Pattern of Abortion among Undergraduates

A cross-sectional study was conducted among 461 randomly selected female students of Wachamo University in Ethiopia using structured questionnaire from January to March, 2015 to assess prevalence of induced abortion and associated factors among the university female students. 5.9% (27) of respondent had induced abortion, 66.7% of total abortions were attended to by health professionals with 57.7% being managed at private health facilities and 11.5% were managed at government facilities.[19]

A descriptive cross-sectional study was conducted among 540 undergraduates of the Kaduna State University in 2016 to assess the prevalence, perceptions, consequences, and determinants of induced abortion among students through simple random sampling technique. The study showed that 6.7% of the respondents were ever pregnant and all (100%) had induced abortion. The study also discovered that 60% of abortions were done in private clinics, 17% in health workers house, 8.6% in Government hospitals, 11% in patent medical stores, and 2.1% in other unidentified places.[20]

A descriptive cross-sectional study was carried out on 303 female undergraduates at the University of Port Harcourt in the month of November, 2019 to evaluate the knowledge and prevalence of induced abortion using a self-administered questionnaire. 25.7% of respondents (78) had previously been pregnant with 79.5% of such pregnancies ending in an induced abortion. Many (53.6%) had their first abortion after 17 years of age. 55.4 had done the

procedure just once, while 19.6 had more than 3 abortions. 67.1% was done by non-medical personnel and 73.2% was done by medical termination.[21]

A descriptive cross-sectional study was carried out on 300 female undergraduates in the University of Abuja during the 2017/2018 academic session to assess the prevalence of induced abortion and contraceptive use among female undergraduates. 28.3% of the respondents had induced abortion at some point while 71.7% had not. 51.9% had used a form of contraception, while 48.1% had not. 52.7% of the respondent who practiced contraception had induced abortion at some point. 15.6% used D/C, 70% induced using medication, 10% used manual vacuum aspiration (MVA), and 4.4% used not specified methods. 13.3% were carried out at home, 42.2% were carried out in chemists, 27.8% in hospitals, and 16.7% in area fertility clinics.[22]

2.2 Relationship between Contraceptive use and Prevalence of Abortion

A cross-sectional descriptive study was carried out among 94 female students from the Adventist University of Goma on the prevalence of sexuality and the contraceptives use, covering a period from March 01 to September 30, 2022. A self-administered questionnaire was used to conduct the study. 100% have information on contraceptive methods, the main source of information is the radio (37%) but the information received on campus about contraceptive methods represents 26%. 67% of female students have a favorable opinion of contraception; 53% female students are currently using contraceptive methods [reflecting an active sexuality] against 47% who do not use any and 31% have opted for modern contraceptive methods. 100% are self-supported regarding the acquisition of contraceptives.[23]

An institutional-based cross-sectional survey using a multistage sampling method was carried out among 299 female students from two universities in North-East, Nigeria in 2024. A structured, interviewer-administered questionnaire was used to elicit information on respondent's socio-demographics, knowledge, and regularity of contraceptives use. One hundred and fifty-five (51.8%) respondents had good knowledge of contraception. The contraceptives most known were; Condoms (60.9%), implants (52.8%), and Oral pills (51.8%). While two-thirds of the respondents were sexually active, only 38.9% of them consistently use contraceptives. The knowledge of contraceptives among undergraduates was inadequate. Its consistent use among sexually active ones is lacking.[24]

A descriptive cross- sectional study in 2019 was conducted among University of Ibadan female undergraduates resident on campus using self administered questionnaires. Overall, 425 female undergraduates between the ages of 15 and 30 years were interviewed. Only 28.7% of the respondents were sexually active and mean age at sexual debut was 19 years. About 63.9% of the sexually active respondents had ever used some form of contraceptives mainly the condom and pills. Only (26.7%) of the sexually active respondents used a contraceptive at their last sexual encounter and contraceptive use was significantly higher among the older females. Contraceptive use among the sexually active female undergraduates of the University of Ibadan was not optimal although knowledge of various methods was high.[25]

A descriptive cross-sectional study was conducted among female undergraduates in the two public universities in Kwara State, Nigeria in 2023. A total of 432 respondents were recruited using a three-stage sampling technique. Data were collected using a pretested self-administered questionnaire. Respondents' age ranged from 18 to 27 years (mean: 20.28 ±

1.91). Most (87.0%) were sexually active. General knowledge of contraceptives ranged from 92 (21.3%) to 267 (61.8%). Awareness of levonorgestrel as an emergency contraceptive was lowest (21.3%), while knowledge of condom effectiveness in preventing HIV/STI was highest (61.8%). Overall contraceptive knowledge was poor (59.0%, 255). Approximately 30.1% of sexually active respondents used contraceptives, with condoms being the most common method (47.8%, 54), while Intrauterine Contraceptive Device (IUCD) was the least used (3.5%, 4). The study posited that Contraceptive knowledge among female undergraduates in Kwara is poor. Most are sexually active and do not use modern contraceptive methods.[26]

A descriptive study was conducted on a sample size of 330 among female undergraduate student of Prince Abubakar Audu University, Anyigba in 2024. A multi-stage sampling technique was employed to choose the respondents from the population of the students using multi-stage sampling technique. The study reported that the most commonly known contraceptive methods among the female undergraduate students are oral pills, injection and condom. In the analysis the most common methods known by the respondents using the average are oral pills (4.42), injection (4.35) and condom while the least known methods of contraception are withdrawal (1.76) and vaginal rings (1.78).[27]

A survey research design was carried out among female undergraduates in the six faculties of the Federal university at Oye, Ekiti in 2024. The sample size was 200 respondents randomly selected from females in the faculties. Questionnaire was the main instrument of data collection. The study concluded that female undergraduates of FUOYE were mostly between 16–25 years (85.5%), majority (69%) had their first sexual intercourse between 16 and 18 years, 100% of the respondents were aware of and (58%) use contraceptives frequently to

prevent unwanted pregnancy and sexually transmitted diseases. The majority of the respondents use and got know about contraceptives through their friends (45.5%) and 20% equally. Majority (76.5%) had only one sexual partner and (58%) had sex frequently.[28]

2.3 Level of Sexual Partner Communication on Contraceptives and Abortion Practices

A descriptive cross-sectional survey was used to carry out a study among undergraduate university students focusing on their knowledge, use and attitudes towards contraception in the University of Education, Winneba, using a structured self-administered questionnaire. One hundred undergraduate students from the University of Education Winneba were selected using a multistage simple random sampling technique. A Likert scale questionnaire was used to assess the attitude of the respondents towards the use of contraceptive. The study found that the respondents had a positive attitude towards the use of contraceptive. Knowledge of contraception, awareness and benefits however do not commensurate contraceptive use among undergraduate students since availability, accessibility and preference influence usage. Emergency Contraception was reported as easy to get contraceptive, hence the most frequently used contraceptive (31%) among young female students aged 21-24 years who appeared as the most vulnerable in accessing and using contraceptives due to perceived social stigma.[29]

A cross-sectional study design was carried out among 306 female undergraduate students in a Southwest Nigerian tertiary institution in 2015 who completed the questionnaire. One hundred and eighty six (60.8%) students were currently sexually active. The mean age of sexual debut was 19.11 years. Sixty-six (35.5%) had more than one sexual partners. Contraceptive knowledge was 100%, but consistent use was 34.4%. A third of the respondents had sex for material rewards and/or under the influence of alcohol and

recreational drugs. Students who were less than 20 years old were more likely to be sexually active while those from polygamous/separated families were less likely to be sexually active. The study posited that there is a high level of sexual activity and low contraceptive use among female undergraduate students in Southwest Nigeria.[30]

A cross-sectional survey conducted in June 2016 among 805 female students of the Lagos State University. Data were collected through structured self-administered questionnaire by obtaining information on demography, sexual and contraceptive history, perception, attitude towards and use of emergency contraceptives. The aim of the study was to assess the sexuality, perception, attitude towards and determinants of usage of emergency contraception among female undergraduates in Lagos, Nigeria. Out of the 725 (90%) completed questionnaires, 334 (46%) of the respondents were sexually active with 115 (34%) having previous history of pregnancy. Eighty-two percent of those pregnancies were unintended. Eighty-eight percent of those with unintended pregnancy had them terminated by induced abortions, 54% of which was carried out by untrained persons. Only 29% of those who had unprotected sexual intercourse used emergency contraceptives. Lack of knowledge and promotion of sexual promiscuity among young people were identified as the main reasons for not using emergency contraceptives.[31]

2.4 Knowledge and Attitude towards the use of Contraceptives

A cross-sectional study was conducted in 2025 on factors associated with the utilization of emergency contraceptives by female college students in rural Ghana. The study adopted a quantitative cross-sectional research design to study 310 female college students from two institutions – Midwifery Training College and the Tumu College of Education – located in the Sissala East Municipality of the Upper West region of Ghana. A structured questionnaire

consisting of four sections was utilized as the data collection instrument. 80.2% of students had heard of emergency contraceptives with the health worker (41.6%) and colleagues/friends (30.8%) being the most common sources of information. Overall, the majority of participants had good knowledge (78.2%) and good attitudes (77.8%) regarding emergency contraceptives practice. 52% had used emergency contraceptives before, with more than half (69.5%) utilizing levonorgestrel-only pill the most. The study found that despite the majority of participants having heard of emergency contraceptives, most were not utilizing them appropriately due to a lack of detailed information and misconceptions.[32]

A descriptive cross-sectional research design was conducted in 2024 among students of tertiary institutions in Nigeria aimed to determine the accessibility and utilization of contraceptives and its associated factors. The study was conducted using 404 undergraduates from two tertiary institutions. Simple random sampling was utilized in the study. Structured self-administered questionnaire was used for data collection. The analysis from the study showed that about 51.9% do not have access to contraceptives, and 66.83% are not utilizing contraceptives. Side effect of the drugs, lack of access to modern contraceptives, lack of money to access it and lack of appropriate knowledge of the one to use are major factors for non-utilization. The study concluded that there is poor accessibility and utilization of modern contraceptives among young people. Individual's religion and accessibility could influence utilization.[33]

A cross-sectional research design was conducted among female students of television studies in Nigeria on the predictors of good contraception attitude and practice through a simple random technique by balloting. The study analysis discovered that (91%) of respondents are aware of contraception. Majority (94.9%) of the respondents have had unplanned pregnancies

and only 42.1% had ever used contraception. The study shows that most respondents are aware of contraception. However, they show poor attitudes to and practice of contraception.[34]

CHAPTER THREE

METHODOLOGY

The chapter provides information about the research approaches and procedures that was adopted and utilized in this study.

3.1 Study Area

This study was conducted in the University of Benin (UNIBEN), Benin city, Edo State, Nigeria. Edo State is one of the 36 states in Nigeria with its capital as Benin City. It is located in the South-South geopolitical zone of Nigeria. Edo State is bounded by the states of Kogi to the northeast and east, Anambra to the east, Delta to the southeast and south, and Ondo to the west and northwest; the Niger River flows along the state's eastern boundary. Benin City is the state capital and largest urban center. The state consists of closely related ethnic groups including Benin, Esan, Etsako, Owan and other tribes that reside in the state. There are seven (7) universities in the state comprising one federal university, two state universities and four private universities.[35]

The University of Benin is located in Ovia North-East Local Government Area (LGA) which is one of the eighteen (18) Local Government Areas in Edo State. It is a public university owned by the federal government of Nigeria. It was founded in 1970, started out as an institute of technology and was accorded the status of a full-fledged university by the National Universities Commission on the 1st of July, 1971. The university was originally

owned by the state government, but became a federal university on the 1st of April, 1975 when it was taken over by the federal government at the request of the state government.[36]

The university has two campuses – Ugbowo and Ekenwan campuses. The current Vice Chancellor is Prof. Lilian I. Salami. The University is officially accredited and recognized by the National Universities Commission (NUC), Nigeria. It offers courses and programs leading to officially recognized higher education degrees in several areas of study. It has a student enrollment of 38,309 full-time students; and 4,000–4,499 academic staff. The faculties in UNIBEN include Agriculture, Arts, Education, Engineering, Engineering Sciences, Environmental Sciences, Humanities, Life Sciences, Management Sciences, Pharmacy, Physical Sciences, Social Sciences, Veterinary Medicine and a College of Medical Sciences composed of the Schools of Medicine, Dentistry, Basic Medical Sciences and the Institute of Child Health.[37]

The University has a website where a portal exists and students can log into their personal portal. The students can also monitor their academic progress and also make payments to the institution via the portal after logging in with their student identity number and password.

3.2 Study Design

A descriptive cross-sectional research design was used in this study.

3.3 Scope of Study

This study focused on the prevalence and pattern of induced abortion amongst female undergraduates of the University of Benin. This study also explores the various factors contributing to this decision, how reproductive health services influence abortion rates, and the psychological consequences of this decision.

3.4 Study Duration

This study was carried out between July to September, 2025.

3.4 Study Population

The study was carried out amongst female undergraduate students of the University of Benin, Benin City, Edo State.

3.5 Selection Criteria

3.5.1 Inclusion criteria

I. Students of the University of Benin.

II. Females only.

III. Students who gave consent for the study.

3.5.2 Exclusion Criteria

I. Students who were too ill to participate in the study

II. Those who couldn't comprehend the study.

3.6 Minimum Sample Size Estimation

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

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

Where:

n = Minimum Sample Size.

Z = Standard normal deviation set at 95% confidence interval (1.96).

p = Prevalence rate of a particular characteristics of the target population

Prevalence of abortion in a study done in Hawassa University, Southern Region, Ethiopia in 2019 by Sahile and Beyene in female undergraduates is 68.7%.[37]

Therefore p = 0.687

q = 1 p =

1- 0.687= 0.313

d = Degree of precision set at 0.05 Confidence interval

Hence:

n = 330.4

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

n_f= n/1-n

n_f= 330.4/1-0.1

n_f= 330.4/0.9

n_f= 367.1

A design effect of 1.5 was used.

= 367.1 x 1.5 = 550

Thus, the final minimum sample size for this study will be 550.

3.7 Sampling Technique

Respondents for the study were selected using random sampling technique. A total of 550 respondents were used in the study and questionnaires were administered to students from each department. Respondents who meet the inclusion criteria would be selected consecutively until the targeted sample size is reached.

Stage 1: Selection of Campus

The University of Benin has two campuses – Ugbowo and Ekehuan campuses. The Ugbowo campus of the University of Benin was selected using simple random sampling by balloting.

Stage 2: Selection of Faculties

A list of the 15 faculties in the Ugbowo campus was obtained from the Central Records Processing Unit Division, University of Benin. Eight faculties were selected using simple random sampling by balloting.

Stage 3: Selection of Department

The total number of departments in each faculty was gotten from the faculty secretary of the respective faculties and one department per faculty will be selected using simple random sampling by balloting.

Stage 4: Selection of Respondents

Stratified sampling technique was used to select the number of respondents in each level/stratum from each department.

3.8 Tools for Data Collection

Data were obtained with the aid of a structured, self-administered questionnaire with close ended and open-ended questions that seek to answer the study objectives.

The questions will be divided into 5 sections as follows:

Section A: Sociodemographic Data which obtained information on the respondents such as age, sex, faculty, department, level and ethnic group.

Section B: Prevalence and pattern of abortion.

Section C: Prevalence and pattern of the use of contraceptives.

Section D: Sexual partner communication on contraceptives and abortion practices.

Section E: Knowledge and attitude towards the use of contraceptives.

3.9 Method of Data Collection

The pre-tested structured questionnaires were self-administered at the University of Benin. The respondents were allowed to answer the questionnaires in or around the lecture theatres where they will feel safe and their privacy was ensured. Informed consent was obtained from the respondents and they were assured of confidentiality.

3.10 Data Analysis

Data gathered were collated and screened for completeness after which they was serially entered into IBM SPSS version 23.0 software for analysis before scoring.

3.11 Data Presentation

The study used tables, frequency, and percentages to present the data gotten from my study.

3.12 Data Scoring

Section B: Prevalence and Pattern of Abortion

Prevalence was calculated using

$$\text{Prevalence} = \frac{\text{Total number of respondents who have had an abortion}}{\text{Total number of respondents}} \times 100$$

Section E: Knowledge and Attitude Towards the Use of Contraceptives

Knowledge of contraceptives was assessed using a total of 7 questions (2 multiple response questions). A score of 1 was given for every correct answer, and a score of 0 was assigned to every incorrect answer.

The total score for each respondent was calculated and converted to a percentage. Respondents were then categorised into two groups based on their scores.

i. Good knowledge of contraceptives: Scores ≥ 50%

ii. Poor knowledge of contraceptives: Scores < 50%

Access to contraceptives was assessed using a total of 4 questions. A score of 1 was given for every Yes answer, and a score of 0 was assigned to every No answer.

The total score for each respondent was calculated and converted to a percentage. Respondents were then categorised into two groups based on their scores.

i. Good access to contraceptives: Scores ≥ 50%

ii. Poor access to contraceptives: Scores < 50%

3.12 Ethical Consideration

Ethical approval and permission to carry out the study was obtained from the Health Research Ethics Committee of the University of Benin Teaching Hospital (ADM/E 22/ A/VOL. VII/148654912604). Informed consent was also taken from the respondents before administering the questionnaires. The respondents were informed that they have the right to withdraw from the study at any time and that withdrawal poses no loss or harm.

3.13 Study Limitation

This study would rely on information provided by respondents and may be limited by errors which may be introduced due to recall bias. Some respondents may give false information or even withhold information. Recall bias was overcome by asking simple, clear and specific questions.

CHAPTER FOUR

RESULTS

A total of 550 respondents participated in the study giving a response rate of 100%. The results are presented in the following sections in line with the specific objectives.

SECTION A: Socio-demographic characteristics of respondents

SECTION B: Prevalence and patterns of abortion among respondents

SECTION C: Relationship between the contraceptives use and prevalence of abortion among respondents

SECTION D: Level of sexual partner communication on contraceptive and abortion practices among respondents

SECTION E: Level of knowledge and attitude towards the use of contraceptives among respondents

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1a: Socio-demographic characteristics of respondents

Variable	Frequency (n = 550)	Percent
Age (years)		
15 – 19	123	22.4
20 – 24	294	53.5
25 – 29	107	19.5
≥ 30	26	4.7
Mean age (±SD) (years) = 22.3 ± 3.5 years		
Faculty/Department		
Management sciences	89	16.2
Agricultural sciences	87	15.8
Medicine/Medicine	83	15.1
Law/Law	65	11.8
Nursing	63	11.5
Basic medical sciences/Physiotherapy	59	10.7
Dentistry/Dentistry	58	10.5
Pharmacy/Pharmacy	46	8.4
Level		
100 level	134	24.4
200 level	106	19.3
300 level	126	22.9
400 level	134	24.4
500 level	25	4.5
600 level	25	4.5
Religion		
Christian	486	88.4
Islam	51	9.3
Atheist	12	2.2
ATR	2	0.2
Marital status		
Single	503	91.5
Married	33	6.0
Cohabiting	14	2.5
Monthly allowance		
< ₦20,000	20	3.6
₦20,000 – 50,000	256	46.5
₦50,001 – 100,000	190	34.5
₦100,001 – 200,000	64	11.6
> ₦200,000	20	3.6
Family type		
Monogamy	482	87.6
Polygamy	68	12.4
Place of residence		
School hostel	308	56.0
Off-campus	242	44.0

The highest proportion of the respondents 294 (53.5%) were within the age group 20 – 24 years. The mean age of the respondents was 22.3 ± 3.5 years. The highest proportion, 89 (16.2%) of the respondents were in the Faculty of Management sciences and 134 (24.4%) were in 100 and 400 level. Majority of the respondents were Christian 486 (88.4%) and Single 503 (91.5%). A majority of the respondents 348 (91.6%) were Christian and 180 (47.4%) were traders. The highest proportion of the respondents, 256 (46.5%) had a monthly allowance of between 20,000 and 50,000 naira and 482 (87.6%) were from a monogamous family. More than half of the respondents, 308 (56.0%) stayed in the school hostel.

Table 1b: Socio-demographic characteristics of respondents

Variable	Frequency (n = 550)	Percent
Ethnic group		
Benin	175	31.8
Igbo	117	21.3
Esan	66	12.0
Yoruba	58	10.5
Urhobo	28	5.1
Hausa	20	3.6
Etsako	14	2.5
Others	72	13.1

The commonest tribes among the respondents were Benin 175 (31.8%), Igbo 117 (21.3%), Esan 66 (12.0%) and Yoruba 58 (10.5%).

SECTION B

PREVALENCE AND PATTERNS OF ABORTION AMONG RESPONDENTS

Table 2a: Prevalence and pattern of abortion among respondents

Variables	Frequency (n = 550)	Percent
Ever been pregnant		
Yes	165	30.0
No	385	70.0
Ever had an abortion (n = 165)		
Yes	165	100
No	0	0.0
No. of abortions performed at a hospital (n = 165)		
None	72	43.6
One	62	37.6
Two	25	15.2
Three	6	3.6
No. of abortions performed at a chemist (n = 165)		
None	90	54.5
One	52	31.5
Two	17	10.3
Three	3	1.8
Four	3	1.8
No. of abortions performed at home (n = 165)		
None	128	77.6
One	24	14.5
Two	11	6.7
Three	2	1.2
Personnel involved (n = 165)		
Doctor	95	57.6
Chemist	48	29.1
Self	20	12.1
Friend	2	1.2
Trimester of abortion (n = 165)		
1st trimester	155	93.9
2nd trimester	10	6.1
Used Oral tablet for abortion (n = 165)		
None	91	55.2
Once	51	30.9
Twice	22	13.3
> Twice	1	0.6
Used injection for abortion (n = 165)		
None	83	50.3
Once	52	31.5
Twice	12	7.3
Thrice	15	9.1
Four times	3	1.8

Majority of the respondents 385 (70.0%) had never been pregnant and all 165 (100.0%) of those who have had had an abortion. Of those who have had an abortion, 62 (37.6%) had one abortion in a hospital, 52 (31.5%) had one abortion at a chemist and 24 (14.5%) had one abortion at home. More than half of the abortions were performed by a doctor 95 (57.6%) and majority, 155 (93.9%) of the abortions were conducted in the 1st trimester. Most of the respondents, 51 (30.9%) had used oral tablets to conduct one abortion and 52 (31.5%) had used injections once for an abortion.

Table 2b: Prevalence and pattern of abortion among respondents

Variables	Frequency (n = 550)	Percent
Used dilatation and curettage for abortion (n = 165)		
None	116	70.3
Once	36	21.8
Twice	8	4.8
Thrice	3	1.8
Four times	2	1.2

Thirty-six (21.8%) had conducted one abortion using dilatation and curettage.

Table 3: Prevalence of abortion and sociodemographic characteristic among respondents

Variable	Ever had an abortion		Test statistic	p-value
	Yes n = 165 Freq (%)	No n = 385 Freq (%)		
Age (years)				
15 – 19	14 (11.4)	109 (88.6)	50.177†	**< 0.001**
20 – 24	92 (31.3)	202 (68.7)		
25 – 29	56 (52.3)	51 (47.7)		
≥ 30	3 (11.5)	23 (88.5)		
Faculty/Department				
Medicine/Medicine	33 (39.8)	50 (60.2)	6.020†	0.548
Dentistry/Dentistry	19 (32.8)	39 (67.2)		
Pharmacy/Pharmacy	13 (28.3)	33 (71.7)		
Basic medical sciences/Physiotherapy	14 (23.7)	45 (76.3)		
Law/Law	20 (30.8)	45 (69.2)		
Agricultural sciences	25 (28.7)	62 (71.3)		
Management sciences	25 (28.1)	64 (71.9)		
Nursing	16 (25.4)	47 (74.6)		
Level				
100 level	11 (8.2)	123 (91.8)	46.468†	**< 0.001**
200 level	38 (35.8)	68 (64.2)		
300 level	46 (36.5)	80 (63.5)		
400 level	52 (38.8)	82 (61.2)		
500 level	13 (52.0)	12 (48.0)		
600 level	5 (20.0)	20 (80.0)		
Religion				
Christian	149 (30.7)	337 (69.3)	0.862†	0.387
Non-Christian	16 (25.0)	48 (75.0)		
Marital status				
Single	154 (30.6)	349 (69.4)	1.065†	0.324
Not single	11 (23.4)	36 (76.6)		
Monthly allowance				
< ₦20,000	4 (20.0)	16 (80.0)	24.398†	**< 0.001**
₦20,000 – 50,000	66 (25.8)	190 (74.2)		
₦50,001 – 100,000	64 (33.7)	126 (66.3)		
₦100,001 – 200,000	16 (25.0)	48 (75.0)		
> ₦200,000	15 (75.0)	5 (25.0)		
Family type				
Monogamy	141 (29.3)	341 (70.7)	1.036†	0.324
Polygamy	24 (35.3)	44 (64.7)		
Place of residence				
School hostel	97 (31.5)	211 (68.5)	0.744†	0.400

Off-campus	68 (28.1)	174 (71.9)

[†]Chi-square test, *Fisher's exact test

The highest proportion of the respondents, 56 (52.3%) who had had an abortion were within the age group 25 – 29 and this was statistically significant ($p < 0.001$). Respondents who were in the department of Medicine had the highest proportion (39.8%) of those who had had an abortion and those in the Basic medical sciences faculty/department of physiotherapy had the least proportion (23.7%) but this was not statistically significant ($p = 0.548$). Respondents who were in 500 level had the highest proportion (52.0%) of those who had had an abortion and those in 100 level (8.2%) had the least proportion and this was statistically significant ($p < 0.001$). Christians had a higher proportion (30.7%) of those who had had an abortion compared to the non-Christians (25.0%) but this was not statistically significant ($p = 0.387$). Respondents who were single had a higher proportion (30.6%) of those who had had an abortion compared to those who were not single (23.4%) but this was not statistically significant ($p = 0.324$). Respondents who had a monthly allowance of > 200,00 naira had the highest proportion (75.0%) of those who had had an abortion and those who had a monthly allowance of < 20,000 naira had the least (20.0%) representing an upward trend and this was statistically significant ($p < 0.001$). Respondents from a polygamous family had a higher proportion (35.3%) of those who had had an abortion compared to those who were from a monogamous family (29.3%) but this was not statistically significant ($p = 0.324$). Respondents residing in the school hostel had a higher proportion (31.35) of those who had had an abortion compared to those who resided off-campus (28.1%) but this was not statistically significant ($p = 0.400$).

SECTION C

RELATIONSHIP BETWEEN THE CONTRACEPTIVES USE AND PREVALENCE OF ABORTION AMONG RESPONDENTS

Table 4: Sexual activity among respondents

Variables	Frequency (n = 550)	Percent
Ever had sexual intercourse		
Yes	323	58.7
No	227	41.3
Age at first sexual intercourse (years) (n = 323)		
≤ 15	7	2.2
16 – 20	256	79.3
21 – 24	43	13.3
≥ 25	17	5.3
Currently sexually active (n = 323)		
Yes	312	96.6
No	11	3.4
No. of sexual partners in past 12 months (n = 323)		
1	232	71.8
2	37	11.5
≥ 3	54	16.7

More than half of the respondents, 323 (58.7%) had had sexual intercourse and most had their first sexual intercourse at age between 16 and 20 years with a mean age if 1st sexual intercourse of 18.99 ± 2.45 years. Of the 323 respondents who had had sex, 312 (96.6%) were currently sexually active and most, 232 (71.8%) only had one sexual partner in the last 12 months.

Table 5a: Use of contraceptives among respondents

Variables	Frequency (n = 323)	Percent
Ever used contraceptives		
Yes	270	83.6
No	53	16.4
Currently using any form of contraceptives		
Yes	231	71.5
No	92	28.5
Contraceptive currently being used (n = 231) *		
Male condom	141	61.0
Withdrawal	72	31.2
Oral pills	65	28.1
Emergency contraceptives	59	25.5
Female condom	32	13.9
Intrauterine device	18	7.8
Injectables	12	5.2
Reason for non-use of contraceptives (n = 92)		
Fear of side effects	44	47.8
Partner disapproval	25	27.2
Do not like it	10	10.9
Religious reason	1	15.2
Place of obtaining contraceptives (n = 270)		
Pharmacies	214	79.3
Clinic	43	15.9
Hospitals	8	3.0
Friends	5	1.8
Ever experienced contraceptive failure (n = 270)		
Yes	96	35.6
No	174	64.4
Frequency of using contraceptives (n = 270)		
Always	104	38.5
Often	89	33.0
Seldomly	76	28.1
Never	1	0.4
Frequency of using condoms with each intercourse (n = 270)		
Always	103	38.1
Often	90	33.3
Seldomly	69	25.6
Never	8	3.0

Majority of the respondents, 270 (83.6%) had ever used contraceptives and 231 (71.5%) were currently using a form of contraceptives. The commonest type of contraceptive being currently used by the respondents were male condom 141 (61.0%), withdrawal method 72 (31.2%) and emergency contraceptive pills (28.1%). The commonest uses of non-use of contraceptive among the respondents were fear of side effects 44 (47.8%) and partner disapproval 25 (27.2%). The commonest places of obtaining contraceptives were pharmacies 214 (79.3%) and the clinic 43 (15.9%) with 96 (35.6%) having experienced contraceptive failure. The highest proportion of the respondents 104 (38.5%) always used contraceptives with every sexual exposure and 103 (38.1%) always used condoms.

Table 5b: Use of contraceptives among respondents

Variables	Frequency (n = 270)	Percent
Frequency of using emergency contraceptives after each intercourse		
Always	30	11.
Often	59	21.9
Seldomly	150	55.6
Never	31	11.5
Ever had side effects from contraceptive use		
Yes	47	17.4
No	223	82.6

The highest proportion of the respondents 150 (55.56%) seldomly used emergency contraceptives after each sexual intercourse and majority of the respondents who used contraceptives, 223 (82.6%) had not experienced any side effects from contraceptive use.

Table 6: Use of contraceptives and sociodemographic characteristic among respondents

Variable	Ever used contraceptives		Test statistic	p-value
	Yes n = 270 Freq (%)	No n = 53 Freq (%)		
Age (years)				
15 – 19	23 (79.3)	6 (20.7)	9.751*	**0.018**
20 – 24	143 (83.1)	29 (16.9)		
25 – 29	87 (90.6)	9 (9.4)		
≥ 30	17 (65.4)	9 (34.6)		
Faculty/Department				
Medicine/Medicine	52 (88.1)	7 (11.9)	23.034†	**0.001**
Dentistry/Dentistry	24 (85.7)	4 (14.3)		
Pharmacy/Pharmacy	24 (85.7)	4 (14.3)		
Basic medical sciences/Physiotherapy	26 (89.7)	3 (10.3)		
Law/Law	32 (88.9)	4 (11.1)		
Agricultural sciences	51 (91.1)	5 (8.9)		
Management sciences	35 (62.5)	21 (37.5)		
Nursing	26 (83.9)	5 (16.1)		
Level				
100 level	9 (31.0)	20 (69.0)	12.850*	**0.020**
200 level	12 (20.3)	47 (79.7)		
300 level	15 (16.7)	75 (83.3)		
400 level	17 (15.7)	91 (84.3)		
500 level	0 (0.0)	22 (100.0)		
600 level	0 (0.0)	15 (100.0)		
Religion				
Christian	235 (83.9)	45 (16.1)	0.174†	0.825
Non-Christian	35 (81.4)	8 (18.6)		
Marital status				
Single	235 (84.8)	42 (15.2)	2.202†	0.195
Not single	35 (76.1)	11 (23.9)		
Monthly allowance				
< ₦20,000	4 (57.1)	3 (42.9)	6.419†	0.160
₦20,000 – 50,000	114 (80.9)	27 (19.1)		
₦50,001 – 100,000	105 (85.4)	18 (14.6)		
₦100,001 – 200,000	31 (91.2)	3 (8.8)		
> ₦200,000	16 (88.9)	2 (11.1)		
Family type				
Monogamy	232 (84.7)	42 (15.3)	1.536†	0.294
Polygamy	38 (77.6)	11 (22.4)		
Place of residence				
School hostel	142 (85.5)	24 (14.5)	0.948†	0.369
Off-campus	128 (81.5)	29 (18.5)		

†Chi-square test, *Fisher's exact test

The highest proportion of the respondents, 90 (90.6%) who had ever used contraceptive were within the age group 25 – 29 and this was statistically significant (p = 0.018). Respondents who were in the faculty of Agricultural sciences had the highest proportion (91.1%) of those who had ever used contraceptive and those in the Management sciences had the least proportion (62.5%) and this was statistically significant (p = 0.001). Respondents who were in 100 level had the highest proportion (31.0%) of those who ever used contraceptive and those in 500 and 600 level (0.0%) had the least proportion and this was statistically significant (p = 0.020). Christians had a higher proportion (83.9%) of those who had ever used contraceptive compared to the non-Christians (25.0%) but this was not statistically significant (p = 0.825). Respondents who were single had a higher proportion (84.8%) of those who had ever used contraceptive compared to those who were not single (76.1%) but this was not statistically significant (p = 0.195). Respondents who had a monthly allowance of between 100,001 and 200,00 naira had the highest proportion (91.2%) of those who had ever use a contraceptive and those who had a monthly allowance of 20,000 naira had the least (57.1%) representing an upward trend but this was not statistically significant (p = 0.160). Respondents from a monogamous family had a higher proportion (84.7%) of those who had ever use a contraceptive compared to those who were from a polygamous family (77.6%) but this was not statistically significant (p = 0.294). Respondents residing in the school hostel had a higher proportion (85.5%) of those who had ever use a contraceptive compared to those who resided off-campus (81.5%) but this was not statistically significant (p = 0.369).

Table 6b: Association between use of contraceptives and sociodemographic characteristic among respondents

Prevalence of abortion	Ever used contraceptives		Chi-square test	p-value
	Yes n = 270 Freq (%)	No n = 53 Freq (%)		
Yes	146 (88.5)	19 (11.5)	5.889	**0.017**
No	124 (78.5)	34 (21.5)		

Respondents had had an abortion had a higher proportion of those who had ever used contraceptives (88.5%) compared to those who had not had an abortion (78.5%) and this was statistically significant (p = 0.017).

SECTION D

LEVEL OF SEXUAL PARTNER COMMUNICATION ON CONTRACEPTIVE AND ABORTION PRACTICES AMONG RESPONDENTS

Table 7: Sexual partner communication on contraceptive and abortion practices among respondents

Variables	Frequency (n = 323)	Percent
Decision maker for use contraceptives*		
Respondent alone with the knowledge of sexual partner	154	57.0
Respondent and sexual partner	123	45.6
Respondent alone without the knowledge of sexual partner	60	22.2
Respondent alone against the wish of sexual partner	20	7.4
Ever discussed contraceptive with partner		
Yes	242	89.6
No	28	10.4
Initiator of discussion about contraceptive (n = 242)		
Both	148	61.2
Respondent	53	21.9
Sexual partner	41	16.9
Frequency of discussing contraceptive (n = 242)		
Frequently	87	36.0
Occasionally	108	44.6
Rarely	47	19.4
Ever discussed abortion with partner (n = 550)		
Yes	193	35.1
No	357	64.9
Attitude of partner to discussion on abortion (n =		

193)		
Supportive	122	63.2
Opposed	34	17.6
Indifferent	37	19.2

The highest proportion of the respondents, 154 (57.0%) decided on contraceptive use alone with the knowledge of their partner and 242 (89.6%) had discussed contraceptive use with their partner. For most of the respondents 148 (61.2%), the conversation about contraceptive use could be initiated by either the respondent or their sexual partner and 108 (44.6%) occasionally had discussions about contraceptives with their partner. About a third of the respondents, 193 (35.1%) had discussed an abortion with their partner and most, 122 (63.2%) of the respondent's partners were supportive about having an abortion.

SECTION E

LEVEL OF KNOWLEDGE AND ATTITUDE TOWARDS TO THE USE OF CONTRACEPTIVES AMONG RESPONDENTS

Table 8: Knowledge and attitude towards the use of contraceptives among respondents

Variables	Frequency (n = 550)	Percent
Know where to obtain contraceptives		
Yes	403	73.3
No	147	26.7
Usual place to obtain contraceptives* (n = 403)		
Pharmacies	270	67.0
School clinic	63	15.6
Hospitals	51	12.7
Friends or peer	10	2.5
Ever had difficulty accessing contraceptives		
Yes	97	17.6
No	252	45.8
Never tried to obtain one	201	36.5
Reason for difficulty obtaining contraceptives (n = 97)		
High cost	49	50.5
Stigma/Shame	31	32.0
Long distance	21	21.6
Stock out/Unavailability	18	18.6
Lack of information	10	10.3
Cultural/Religious belief influence decision concerning contraceptives		
Yes	270	49.1
No	280	50.9

Received formal education or counselling on reproductive health		
Yes	424	77.1
No	126	22.9

Most of the respondents, 403 (73.3%) knew where to obtain contraceptives and the most common usual place for obtaining contraceptives for the respondents was the pharmacy 270 (67.0%). The highest proportion of the respondents, 252 (45.8%) had no difficulty obtaining contraceptive and difficulties faces by respondents when trying to obtain contraceptives was high cost 49 (50.5%), stigma or shame 31 (32.0%) and long distance 21 (21.6%). More of the respondents do not allow cultural/religious belief influence their decision 280 (50.9%) and majority, 424 (77.1%) had received a formal education or counselling on reproductive health.

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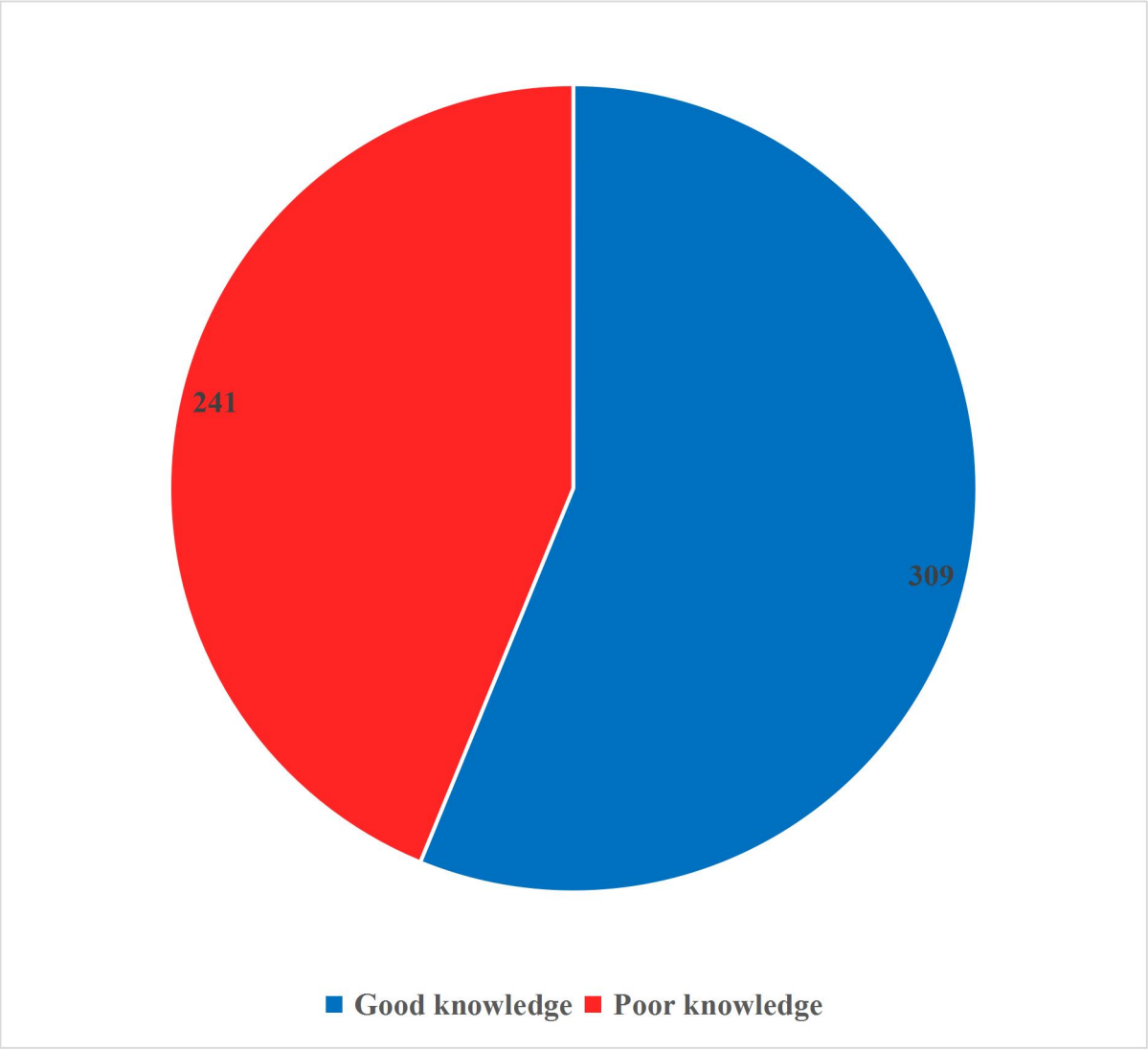

Figure 1: Knowledge of use of contraceptives among respondents

Overall, 309 (56.2%) of the respondents had good knowledge of use of contraceptives and 241 (43.8%) had poor knowledge

Table 9: Knowledge of contraceptives and sociodemographic characteristic

Variable	Knowledge of contraceptives		Chi-square test	p-value
	Good n = 309 (%)	Poor n = 241 (%)		
Age (years)				
15 – 19	30 (24.4)	93 (75.6)	91.366	**< 0.001**
20 – 24	168 (57.1)	126 (42.9)		
25 – 29	91 (85.0)	16 (15.0)		
≥ 30	20 (76.9)	6 (23.1)		
Faculty/Department				
Medicine/Medicine	57 (68.7)	26 (31.3)	15.062	**0.036**
Dentistry/Dentistry	26 (44.8)	32 (55.2)		
Pharmacy/Pharmacy	29 (63.0)	17 (37.0)		
Basic medical sciences/Physiotherapy	30 (50.8)	29 (49.2)		
Law/Law	33 (50.8)	32 (49.2)		
Agricultural sciences	56 (64.4)	31 (35.6)		
Management sciences	48 (53.9)	41 (46.1)		
Nursing	30 (47.6)	33 (52.4)		
Level				
100 level	27 (20.1)	107 (79.9)	122.699	**< 0.001**
200 level	54 (50.9)	52 (49.1)		
300 level	80 (63.5)	46 (36.5)		
400 level	109 (81.3)	25 (18.7)		
500 level	23 (92.0)	2 (8.0)		
600 level	16 (64.0)	9 (36.0)		
Religion				
Christian	270 (55.6)	216 (44.4)	0.665	**0.426**
Non-Christian	39 (60.9)	25 (39.1)		
Marital status				
Single	272 (54.1)	231 (45.9)	10.607	**0.001**
Not single	37 (78.7)	10 (21.3)		
Monthly allowance				
< ₦20,000	5 (25.0)	15 (75.0)	16.203	**0.003**
₦20,000 – 50,000	134 (52.3)	122 (47.7)		
₦50,001 – 100,000	114 (60.0)	76 (40.0)		
₦100,001 – 200,000	40 (62.5)	24 (37.5)		
> ₦200,000	16 (80.0)	4 (20.0)		
Family type				
Monogamy	269 (55.8)	213 (44.2)	0.220	**0.696**
Polygamy	40 (58.8)	28 (41.2)		
Place of residence				
School hostel	170 (55.2)	138 (44.8)	0.277	**0.605**
Off-campus	139 (57.4)	103 (42.6)		

The highest proportion of the respondents, 91 (85.0%) who had good knowledge of use of contraceptives were within the age group 25 – 29 and those aged 15 – 19 years had the least

proportion (24.4%) and this was statistically significant ($p < 0.001$). Respondents who were in the department of Medicine had the highest proportion (68.7%) of those who had good knowledge of use of contraceptives and those in the department of dentistry had the least proportion (44.8%) and this was statistically significant ($p = 0.036$). Respondents who were in 500 level had the highest proportion (92.0%) of those who had good knowledge of use of contraceptives and those in 100 level (20.1%) had the least proportion and this was statistically significant ($p < 0.001$). Non-Christians had a higher proportion (60.9%) of those who had good knowledge of use of contraceptives compared to the Christians (55.6%) but this was not statistically significant ($p = 0.825$). Respondents who were not single had a higher proportion (78.7%) of those who had good knowledge of use of contraceptives compared to those who were single (54.1%) and this was statistically significant ($p = 0.001$). Respondents who had a monthly allowance of between > 200,00 naira had the highest proportion (80.0%) of those who had good knowledge of use of contraceptives and those who had a monthly allowance of 20,000 naira had the least (25.0%) representing an upward trend and this was statistically significant ($p = 0.003$). Respondents from a polygamous family had a higher proportion (58.8%) of those who had good knowledge of use of contraceptives compared to those who were from a monogamous family (55.8%) but this was not statistically significant ($p = 0.696$). Respondents residing in the school hostel had a lower proportion (55.2%) of those who had good knowledge of use of contraceptives compared to those who resided off-campus (57.4%) but this was not statistically significant ($p = 0.605$).

Table 10: Association between prevalence of abortion and use of contraceptives and knowledge of contraceptives among the respondents

Variable	Knowledge of contraceptives		Chi-square test	p-value
	Yes n = 309 Freq (%)	No n = 241 Freq (%)		
Prevalence of abortion				
Yes	155 (93.9)	10 (6.1)	136.504†	**< 0.001**
No	154 (40.0)	231 (60.0)		
Ever used any methods of contraceptives				
Yes	263 (97.4)	7 (2.6)	145.389†	**< 0.001**
No	20 (37.7)	33 (62.3)		

Respondents had had an abortion had a higher proportion of those who good knowledge of use of contraceptives (93.9%) compared to those who had not had an abortion (40.0%) and this was statistically significant ($p < 0.001$).Respondents had used a contraceptive had a higher proportion of those who good knowledge of use of contraceptives (97.4%) compared to those who had not used a contraceptives (37.7%) and this was statistically significant ($p < 0.001$).

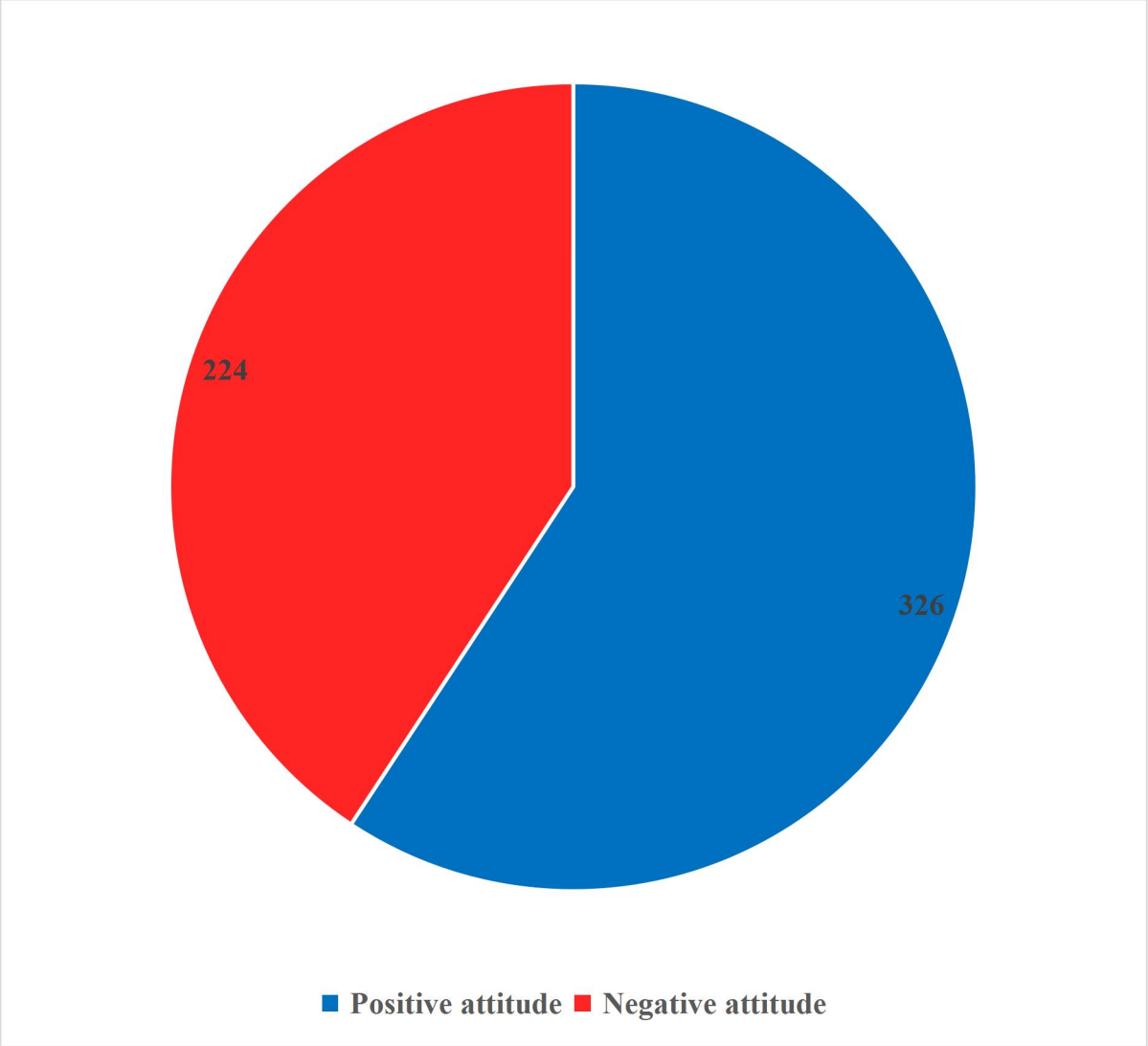

Figure 2: Attitude towards contraceptives among respondents

Overall, 326 (59.3%) of the respondents had a positive attitude towards use of contraceptives and 224 (40.7%) had negative attitude.

Table 11: Attitude towards contraceptives and sociodemographic characteristic among respondents

Variable	Attitude towards contraceptives		Chi-square test	p-value
	Yes n = 326 Freq (%)	No n = 224 Freq (%)		
Age (years)				
15 – 19	47 (38.2)	76 (61.8)	41.136	**< 0.001**
20 – 24	177 (60.2)	117 (39.8)		
25 – 29	85 (79.4)	22 (20.6)		
≥ 30	17 (65.4)	9 (34.6)		
Faculty/Department				
Medicine/Medicine	60 (72.3)	23 (27.7)	32.799	**< 0.001**
Dentistry/Dentistry	24 (41.4)	34 (58.6)		
Pharmacy/Pharmacy	30 (65.2)	16 (34.8)		
Basic medical sciences/Physiotherapy	45 (76.3)	14 (23.7)		
Law/Law	34 (52.3)	31 (47.7)		
Agricultural sciences	52 (59.8)	35 (40.2)		
Management sciences	39 (43.8)	50 (56.2)		
Nursing	42 (66.7)	21 (33.3)		
Level				
100 level	56 (41.8)	78 (58.2)	31.058	**< 0.001**
200 level	61 (57.5)	45 (42.5)		
300 level	77 (61.1)	49 (38.9)		
400 level	92 (68.7)	49 (38.9)		
500 level	20 (80.0)	5 (20.0)		
600 level	20 (80.0)	5 (20.0)		
Religion				
Christian	289 (59.5)	197 (40.5)	0.064	**0.892**
Non-Christian	37 (57.8)	27 (42.2)		
Marital status				
Single	294 (58.4)	209 (41.6)	1.653	**0.217**
Not single	32 (68.1)	15 (31.9)		
Monthly allowance				
< ₦20,000	10 (50.0)	10 (50.0)	8.506	**0.076**
₦20,000 – 50,000	157 (61.3)	99 (38.7)		
₦50,001 – 100,000	109 (57.4)	81 (42.6)		
₦100,001 – 200,000	33 (51.6)	31 (48.4)		
> ₦200,000	17 (85.0)	3 (15.0)		
Family type				
Monogamy	283 (58.7)	199 (41.3)	0.505	**0.512**
Polygamy	43 (63.2)	25 (36.8)		
Place of residence				
School hostel	178 (57.8)	130 (42.2)	0.636	**0.433**

Off-campus	148 (61.2)	94 (38.8)

The highest proportion of the respondents 85 (79.4%) who had positive attitude towards use of contraceptives were within the age group 25 – 29 and those aged 15 – 19 years had the least proportion (38.2%) of those who had positive attitude and this was statistically significant ($p < 0.001$). Respondents who were in the faculty of basic medical science and department of physiotherapy had the highest proportion (76.3%) of those who had positive attitude towards use of contraceptives and those in the department of dentistry had the least proportion (41.4%) and this was statistically significant ($p < 0.001$). Respondents who were in 600 level had the highest proportion (80.0%) of those who had positive attitude towards use of contraceptives and those in 100 level (41.8%) had the least proportion and this was statistically significant ($p < 0.001$). Christians had a higher proportion (59.5%) of those who had positive attitude towards use of contraceptives compared to the non-Christians (57.8%) but this was not statistically significant ($p = 0.892$). Respondents who were not single had a higher proportion (68.1%) of those who had positive attitude towards use of contraceptives compared to those who were single (58.4%) and this was not statistically significant ($p = 0.217$). Respondents who had a monthly allowance of > 200,00 naira had the highest proportion (85.0%) of those who had positive attitude towards use of contraceptives and this was not statistically significant ($p = 0.076$). Respondents from a polygamous family had a higher proportion (63.2%) of those who had positive attitude towards use of contraceptives compared to those who were from a monogamous family (58.7%) but this was not statistically significant ($p = 0.512$). Respondents residing in the school hostel had a lower proportion (57.8%) of those who had positive attitude towards use of contraceptives compared to those who resided off-campus (57.8%) but this was not statistically significant ($p = 0.433$).

Table 12: Attitude towards contraceptives and prevalence of abortion, use and knowledge of contraceptives among respondents

Variable	Attitude towards contraceptives		Test statistic	p-value
	Yes n = 326 Freq (%)	**No n = 224 Freq (%)**		
Prevalence of abortion				
Yes	134 (81.2)	31 (18.8)	47.000†	**< 0.001**
No	192 (49.9)	193 (50.1)		
Ever used any methods of contraceptives				
Yes	214 (79.3)	56 (20.7)	16.470†	**< 0.001**
No	28 (52.8)	25 (47.2)		
Knowledge of contraceptives				
Good knowledge	234 (75.7)	75 (24.3)	79.101	**< 0.001**
Poor knowledge	92 (38.2)	149 (61.8)		

†Chi-square test, *Fisher's exact test

Respondents had had an abortion had a higher proportion of those who had positive attitude towards use of contraceptives (81.2%) compared to those who had not had an abortion (49.9%) and this was statistically significant ($p < 0.001$).Respondents had used a contraceptive had a higher proportion of those who had positive attitude towards use of contraceptives (79.3%) compared to those who had not used a contraceptives (52.8%) and this was statistically significant ($p < 0.001$). Respondents had good knowledge of contraceptive had a higher proportion of those who had positive attitude towards use of contraceptives (75.7%) compared to those who had poor knowledge (38.2%) and this was statistically significant ($p < 0.001$).

CHAPTER 5

DISCUSSION

This study examined the prevalence and pattern of abortion among female undergraduates of the University of Benin, as well as the association with contraceptive use, partner communication concerning abortion and contraceptive use, knowledge and attitude towards contraceptive use. The findings provide critical insights into the reproductive health challenges faced by young women in tertiary institutions in Nigeria. Most of the respondents were aged 20 – 24 years with a mean age of 22.3 ± 3.5 years. Majority were Christian (about nine-tenths), single (a little over nine-tenths) and from a monogamous family (about seven-tenths). Almost half had a monthly income between 20,000 and 50,000 naira and more than half resided in the school hostel.

The prevalence of abortion in this study was about three-tenths, which is consistent with similar studies conducted in Nigerian universities, where rates between one-quarter and one-third have been reported.[38,39,40,41] However, this prevalence is considerably higher than the roughly one-twentieth reported in Ethiopia,[42] reflecting significant regional and contextual differences. The higher rate in Nigeria may be attributed to greater stigma associated with premarital pregnancies, restrictive abortion laws, and limited access to youth-friendly reproductive health services.

The finding that most abortions occurred in the first trimester (almost nineteen-twentieths) aligns with reported global trends,[43] who observed that early abortions are more common due to early pregnancy recognition. The fact that doctors performed over half (a little more than one-half) of the abortions suggests that some students accessed relatively safer abortion services. Nevertheless, the proportion conducted in chemists or at home (about two-fifths)

highlights the persistence of unsafe abortion practices. This mirrors findings in Kenya and Ghana, where young women often resort to unsafe providers due to fear of stigma, cost, and lack of confidential services despite having good knowledge and access to good reproductive health services.[44,45]

The use of oral tablets and injections for abortion, often without medical supervision, also reflects a growing trend of self-managed abortions with misoprostol or unregulated drugs. While the World Health Organization acknowledges that self-managed abortion can be safe with proper guidance, lack of correct information and regulation in Nigeria increases the risk of complications such as incomplete abortion, sepsis, or infertility.[46]

The study found that just over four-fifths of respondents had ever used contraceptives, and about seven-tenths were current users, with the male condom being the most common method. However, fewer than two-fifths used contraceptives consistently, and about one-third reported contraceptive failure. These results are consistent with findings in a study which found that Nigerian undergraduates often use contraceptives irregularly due to misconceptions, fear of side effects, or partner disapproval.[38]

The significant association between contraceptive use and abortion prevalence ($p = 0.017$) suggests that many abortions result from contraceptive misuse, failure, or inconsistent application. This finding is supported by studies in Kenya and Ghana, which demonstrated that high contraceptive awareness does not necessarily translate into effective use.[38,47] Fear of infertility, religious influences, and misinformation about contraceptives remain barriers. This underscores the need for improved sexual health education tailored to young people in tertiary institutions.

A notable finding of this study was the relatively high level of partner communication. Almost nine-tenths of respondents discussed contraceptives with their partners, and in most cases, both partners-initiated discussions. This is encouraging, as studies have shown that partner involvement significantly increases contraceptive uptake and consistency.[48,49] However, only about one-third discussed abortion with their partners, reflecting the continuing stigma and secrecy surrounding abortion in Nigeria. Supportive partner attitudes, reported by nearly two-thirds of those who discussed abortion, highlight the potential of involving male partners in reproductive health programs. Studies have found that women with supportive partners were more likely to access safe abortion services.[50]

More than half of respondents demonstrated good knowledge of contraceptives, and about three-fifths had a positive attitude toward their use. This is keeping with other studies that have been conducted in Kware which showed considerably level of good knowledge of contraceptives[51] but in contrast with findings from another study conducted in Sokoto.[52] These findings are also consistent with a study in Ghana where about four-fifths of college students had heard of emergency contraceptives, but misconceptions limited their effective use. Positive attitudes toward contraceptives are promising, but unless misconceptions are corrected and stigma reduced, consistent uptake will remain limited.

Overall, while knowledge and attitude towards contraceptive use and abortions remain high, due to social stigma, misconceptions and unhealthy practices persist, highlighting the need to improve access and information of reproductive health services.

This study is limited by its ross-sectional design which does not assess causality. The data was obtained by self-reported questionnaires leaving room for recall bias. Respondents may have also underreported or misreported facts due to the sensitive nature of the questions and

the social stigma and judgement associated with it. Also, while the study reported where abortions were carried out (doctors, chemists, homes), it did not assess the quality, safety, or methods of these procedures in detail, limiting insights into the actual risks faced.

CONCLUSION

Abortion among female undergraduates at the University of Benin remains a significant public health issue, with a prevalence of 30%. While most abortions occurred in the first trimester and were often performed by doctors, unsafe practices remain prevalent. Contraceptive knowledge was relatively good, but inconsistent use and misconceptions contributed to unintended pregnancies and subsequent abortions. Partner communication was encouraging, though discussions around abortion were limited.

RECOMMENDATION

To the Federal and State Government

- Enforce policies that improve access to safe reproductive health services and regulate the sale of abortifacient drugs.
- Establish confidential, affordable, and accessible services within universities and communities.
- Incorporate evidence-based reproductive health education into secondary and tertiary curricula to improve knowledge and reduce stigma.

To Healthcare Practitioners

- Provide culturally sensitive counselling on contraceptive options, safe sexual practices, and risks of unsafe abortion.
- Foster non-judgmental environments in clinics to encourage students to discuss unintended pregnancies and abortion practices.
- Improve access to a wide range of modern contraceptives and address misconceptions about side effects.

To Pregnant Women and Female Undergraduates

- Adopt modern contraceptive methods and use them consistently to reduce unintended pregnancies.
- Avoid unsafe abortion methods and seek care from qualified providers when needed.
- Discuss contraceptives and pregnancy-related issues openly with partners to improve decision-making.

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APPENDIX I

INFORMED CONSENT FORM

TITLE OF STUDY: PREVALENCE AND PATTERN OF ABORTION AMONG FEMALE UNDERGRADUATES OF UNIVERSITY OF BENIN

INVESTIGATOR: OSAROBO JESSICA OSAMUDIAMEN

SUPERVISOR: PROF. O. A. ADELEYE

FINANCIAL SPONSORSHIP: This research project is self-sponsored

PURPOSE OF THE RESEARCH: The purpose of the research is to assess the prevalence and pattern of abortion among female undergraduates of University of Benin.

PROCEDURES AND PROTOCOL INVOLVED IN THE STUDY

You are kindly requested to complete a questionnaire designed to assess the prevalence and pattern of abortion among female undergraduate of University of Benin. This questionnaire is for research purpose only.

COMPENSATION

There would be no financial compensation for participating in this study.

VOLUNTARAY PARTICIPATION

Your participation in this research is completely voluntary. There will be no discrimination against you if you choose not to participate. You are free to change your mind and withdraw from the study at any time, even if you initially agreed to take part

SIDE EFFECTS

There is no anticipated adverse effect associated with participating in this study

BENEFIT

The benefit of this study includes the provision of useful local data for understanding the trends in Nigeria among undergraduate students and providing recommendations for evidence-based interventions regarding the problem

CONFIDENTIALITY

All information and data obtained during this study will be kept confidential. Participant names will not be recorded on the questionnaires, and all collected information will be securely stored in a password-protected file on my personal computer. Any physical copies will be stored in a locked personal document cabinet.

CONTACT INFORMATION

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Ethics and Research Committee,

University of Benin Teaching Hospital,

Benin City.

Email: ubthresearchethics@gmail.com

Phone Number: 07063331337

IF THERE IS ANY PORTION OF THIS CONSENT AGREEMENT THAT YOU DO NOT UNDERSTAND, ASK THE FIELD WORKER OR INVESTIGATOR BEFORE SIGNING.

Please, sign below if you have agreed to participate in the study.

CERTIFICATION OF CONSENT

I, ……. having full capacity to consent for myself, do hereby consent to my participation in the research study. The methods and means by which the study will be conducted have been explained to me by the Ethical Committee. I have been given the opportunity to ask questions concerning this investigational study, and any such questions have been answered to my full and complete satisfaction. I understand that I may at any time during this study revoke this consent and withdraw myself from the study without prejudice.

Name of Participant: ----------

Signature of participant: ----------

Date: ----------

APPENDIX II

QUESTIONNAIRE

DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE,

SCHOOL OF MEDICINE,

COLLEGE OF MEDICAL SCIENCES,

UNIVERSITY OF BENIN,

BENIN CITY

Dear Respondent,

I am a under-graduate student of the above-named Department. I am conducting research on the "*prevalence and pattern of abortion among female undergraduates of Benin City"*. I wish you could assist me with information on the subject matter by ticking the appropriate column. The exercise is for academic research only and any information provided will be treated with confidentiality.

Thank you.

Yours Faithfully,

Jessica Osamudiamen OSAROBO

Researcher

SECTION A: SOCIODEMOGRAPHIC DATA

1. Age: 16-20 Years ( ) 21-25 Years ( ) 26-30 Years ( ) 31-35 Years ( )
2. Faculty: Medicine and Surgery ( ) Dentistry ( ) Pharmacy ( ) Basic Medical Sciences ( ) Law ( ) Agricultural Sciences ( ) Management Sciences ( ) Nursing ( )
3. Department: Medicine ( ) Dentistry ( ) Pharmacy ( ) Physiotherapy ( ) Law ( ) Agriculture ( ) Accounting ( ) Nursing ( )
4. Level: 100 level ( ) 200 level ( ) 300 level ( ) 400 level ( ) 500 level ( ) 600 level ( )

5. Ethnic group: Bini ( ) Esan ( ) Etsako ( ) Igbo ( ) Yoruba ( ) Hausa ( ) Urhobo ( ) Others ( )
6. Religion: Christian( ) Muslim( ) Atheist ( ) African tradition( ) Others ( )
7. Marital status: Single ( ) Married( ) Cohabiting( ) Separated/Divorced( ) Widowed( )
8. Monthly allowance: < N20,000 ( ) N20,000- N50,000 ( ) N51,000- N100,000 ( ) N101,000- N20,000 ( ) > N20,000 ( )
9. Family status: Monogamy( ) Polygamy( )
10. Residence: School Hotels ( ) Off-campus ( )

SECTION B: PREVALENCE AND PATTERN OF ABORTION

11. Have you ever been pregnant? Yes ( ) No( )
12. Have you ever had an abortion? Yes( ) No( )

If yes, tick the following appropriately;

PLACES	NUMBER OF ABORTIONS				
	1	2	3	4	5
13. Hospital/clinic					
14. Chemist/patent Medi store					
15. Home					

16. Who performed the abortion? Doctor ( ) Chemist ( ) Friend ( ) Self ( )
17. At what term (trimester) was the abortion performed? _____
18. What method was used? Tick appropriately;

METHODS OF ABORTION	NUMBER OF ABORTION				
	1	2	3	4	5
19. Tablet by mouth					
20. Injection					

21. Dilation & Curettage					

SECTION C: USE OF CONTRACEPTIVES

22. Have you ever had sexual intercourse? Yes ( ) No ( )

23. If yes, at what age did you first engage in sexual intercourse? _____

24. Are you currently sexually active? Yes ( ) No ( )

25. How many sexual partners have you had in the past 12 months? One ( ) Two ( ) Three or more ( )

26. Have you ever used any method of contraception? Yes ( ) No ( )

27. Are you currently using any form of contraception? Yes ( ) No ( )

28. If yes, which method(s) are you currently using? (Select all that apply) Male condom ( ) Female condom ( ) Oral pills ( ) Injectables ( ) Emergency contraception ( ) Withdrawal ( ) IUD ( ) Others (specify): _____

29. If no, what are the reasons for not using contraceptives? (Select all that apply); Fear of side effects ( ) Lack of access ( ) Religious/moral reasons ( ) Partner disapproval ( ) Not sexually active ( ) Others (specify): _____

30. Where do you get your contraceptives from? Clinics ( ) Pharmacies ( ) Friends ( ) Online shops ( ) Others (please specify) _____

31. Have you ever experienced contraceptive failure? Yes ( ) No ( )

TICK APPROPRIATELY

	ALWAYS	**OFTEN**	**SELDOMLY**	**NEVER**
32. How often do you use contraceptives?				
33. How often do you condoms whenever you have sexual intercourse?				
34. How often do you take the emergency pill after sexual intercourse?				

35. Have you experienced any side effects from contraceptives use? Yes ( ) No ( )

SECTION D: SEXUAL PARTNER COMMUNICATION ON CONTRACEPTIVE AND ABORTION PRACTICES

36. Your decision to use a contraceptive in the past was taken by;

    (a) You alone with the knowledge of your sexual partner? Yes ( ) No( )

    (b) You alone without the knowledge of your sexual partner? Yes ( ) No ( )

    (c) You alone against the wish of your sexual partner? Yes ( ) No ( )

    (d) You and your sexual partner? Yes ( ) No ( )

    (e) Your sexual partner alone? Yes ( ) No ( )

37. Have you ever discussed contraception with your partner? Yes ( ) No ( )

38. Who usually initiates the discussion on contraception? You ( ) Your partner ( ) Both ( ) Neither ( )

39. How frequently do you and your partner discuss contraception? Frequently ( ) Occasionally ( ) Rarely ( ) Never ( )

40. Have you ever discussed abortion with your partner? Yes ( ) No ( )

41. If yes, what was your partner's attitude? Supportive ( ) Opposed ( ) Indifferent ( ) Other ( )

SECTION E: KNOWLEGDE AND ATTTTUDE TOWARDS THE USE OF CONTRACEPTIVES

42. Do you know where to obtain contraceptives? Yes ( ) No ( )

43. Where do you usually obtain contraceptives? (Select all that apply) School clinic ( ) Pharmacy ( ) Hospital ( ) Friends/Peers ( ) Other (specify): _____

44. Have you ever had difficulty accessing contraceptives? Yes ( ) No ( )

45. If yes, what were the reasons? (Select all that apply) High cost ( ) Long distance ( ) Stigma/shame ( ) Lack of information ( ) Stock out/unavailability ( ) Others (specify): _____

46. Do cultural or religious beliefs influence your decision regarding contraceptive use or abortion? Yes ( ) No ( )

47. Have you ever received any formal education or counselling on reproductive health? Yes ( ) No ( )

48. In your opinion, what can be done to improve access to contraception and safe abortion services on campus?
    (Open-ended):
    _____

Thank you.

APPENDIX III

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

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

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/148654912604

PROPOSAL TITLE: "PREVALENCE AND PATTERNS OF ABORTION AMONG FEMALE UNDERGRADUATES OF UNIVERSITY OF BENIN"

PRINCIPAL INVESTIGATOR(S): OSAROBO JESSICA OSAMUDIAMEN

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

DATE CONSIDERED: AUGUST 11TH, 2025

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 11/8/2025 TO 10/7/2026. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

UNIVERSITY OF BENIN TEACHING HOSPITAL * ETHICS & RESEARCH COMMITTEE * Date..... BENIN CITY P.M.B. 1111 *

CHAIRMAN: PROF. (MRS) A.N. OFILI **SIGNATURE & DATE** 11/8/2025

SUPERVISOR (S): PROF. O.A. ADELEYE

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. 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 re-port 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