KNOWLEDGE AND PREDICTORS OF DELAYED EMERGENCY CONTRACEPTION UTILIZATION AMONG SEXUALLY ACTIVE FEMALE UNDERGRADUATE STUDENTS IN NORTHWEST, NIGERIA

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Abstract

Unintended pregnancies and unsafe abortions among sexually active female undergraduates remain major public health concerns in Nigeria. Although emergency contraception (EC) is an effective method for preventing pregnancy after unprotected sexual intercourse, its utilization remains low and is often delayed. This study assessed the knowledge and predictors of delay in emergency contraception utilization among sexually active female undergraduate students of the Federal University of Education, Zaria, Kaduna State, Nigeria. A descriptive cross-sectional survey design with a mixed-method approach was employed. Using a four-stage sampling technique, 400 consenting respondents were selected from various faculties and departments. Data were collected through a structured self-administered questionnaire that assessed socio-demographic characteristics, knowledge, utilization, and factors associated with delayed EC use. Quantitative data were analyzed using descriptive statistics, Chi-square tests, Spearman correlation, and logistic regression at a 0.05 level of significance, while qualitative data were analyzed thematically. The findings showed that most respondents were aged 20–24 years (50.0%) and single (80.0%), while 42.5% had no income. Although awareness of emergency contraception was high (90.0%), utilization was relatively low (45.0%), and more than half (52.5%) reported delayed use after unprotected intercourse. Respondents generally demonstrated fair-to-good knowledge, though misconceptions persisted. Significant predictors of delayed utilization included stigma and embarrassment, inadequate knowledge, fear of side effects, partner influence, cost, and poor access to health facilities. Financial dependence on partners also emerged as an important factor influencing delays. The study concluded that despite high awareness and moderate knowledge, EC utilization remains inadequate due to psychosocial, economic, and structural barriers. Strengthened reproductive health education, youth-friendly services, and stigma-reduction interventions are recommended.

Keywords: Emergency contraception, delay, female undergraduate students, knowledge, utilization.

Introduction

Emergency contraception (EC) constitutes an essential component of comprehensive sexual and reproductive health services aimed at preventing unintended pregnancy following unprotected sexual intercourse, contraceptive failure, incorrect contraceptive use, or sexual assault. Emergency contraception is available in different forms, including Levonorgestrel Emergency Contraceptive Pills (LNG-ECPs) such as Postinor-2, Ulipristal Acetate (UPA) pills, combined estrogen–progestin pills (Yuzpe regimen), and the Copper-bearing Intrauterine Device (Cu-IUD), which may be inserted within the recommended period after unprotected intercourse (World Health Organization [WHO], 2024). According to WHO (2024), EC is safe and effective when used within 72–120 hours after exposure and represents a critical strategy for reducing unintended pregnancies and associated reproductive health consequences among adolescents and young women. The organization further clarifies that EC does not terminate an established pregnancy and should be universally accessible without discrimination (WHO, 2025). Because effectiveness declines with delay, timely utilization remains essential for optimal outcomes.

Globally, unintended pregnancy remains a major public health challenge affecting adolescents and young adults. WHO (2024) estimates that approximately 121 million unintended pregnancies occur annually worldwide, with nearly half occurring among young women. Despite increasing awareness, timely utilization of emergency contraception remains suboptimal, particularly among female students (Ayamolowo et al., 2024: Akorede et al., 2022). Studies have shown that although awareness levels may range from 60% to 85%, actual utilization often remains below 40% in sub-Saharan Africa (Ayamolowo et al., 2024; UNFPA, 2023; Yusuf et al,2026). This indicates a persistent gap between knowledge and practice in reproductive health behaviour.

The consequences of delayed utilization of emergency contraception are severe and multidimensional. WHO (2024) reports that unintended pregnancy significantly contributes to unsafe abortion globally, with unsafe abortion accounting for approximately 4.7–13.2% of maternal deaths. UNESCO (2024) further notes that unintended pregnancy among female students often results in school absenteeism, academic disruption, and dropout. Similarly, UNICEF (2024) highlights that stigma, shame, and social exclusion remain major psychosocial consequences faced by young women experiencing unintended pregnancy.

In Africa, and particularly Nigeria, reproductive health challenges among young women remain pronounced due to socio-cultural, economic and structural barriers. UNICEF (2024) reports high rates of unintended pregnancy and unsafe abortion among Nigerian adolescents, while UNFPA (2024) emphasizes that limited access to youth-friendly services and inadequate sexuality education continue to hinder contraceptive utilization. Ayamolowo et al. (2024) further note that fear of side effects, stigma and misinformation significantly contribute to delayed EC use across sub-Saharan Africa.

University-based studies across Africa and Nigeria reveal a consistent pattern of high awareness but low utilization of emergency contraception. In Ghana, Adu and Mensah (2024) found that although over 70% of students were aware of EC, correct knowledge and utilization remained low due to religious and cultural influences. Similarly, Dlamini et al. (2025) reported that stigma and fear of social judgement significantly delayed EC use among South African university students. In Nigeria, Bello et al. (2024) reported awareness levels ranging from 55% to 88%, while utilization remained between 20% and 45%, indicating a persistent awareness–utilization gap.

Further Nigerian studies support this trend. Oye-Adeniran et al. (2009) found low EC usage (7.6%) among female undergraduates despite awareness, while Ebuehi et al. (2014) reported 85.1% awareness but only 39.9% utilization among students in Lagos. Ekpenyong et al. (2016) similarly reported that misconceptions about timing and side effects significantly reduced correct usage. In Northern Nigeria, Bello and Yusuf (2025) observed that religious beliefs, stigma and poor confidentiality in health facilities significantly influenced delayed utilization.

Synthesizing available evidence, delayed utilization of emergency contraception is driven by a combination of socio-demographic, psychological, economic, and health system factors, including stigma, fear of side effects, partner influence, cost, and limited access to youth-friendly services (Ojo & Abubakar, 2024; Nwankwo et al., 2023: Yusuf et al., 2026). However, despite increasing research on contraceptive use in Nigerian universities, limited institution-specific evidence exists for Federal University of Education, Zaria, Kaduna State. This creates a significant empirical gap. Therefore, this study seeks to assess the knowledge and predictors of delay in emergency contraception utilization among sexually active female undergraduate students in the study area.

Statement of the Problem

Emergency contraception is an effective method of preventing unintended pregnancy when used within the recommended time after unprotected sexual intercourse or contraceptive failure. However, its effectiveness depends on adequate knowledge, timely access, and correct utilization. Despite increased awareness of emergency contraception in Nigeria, many sexually active female undergraduate students still have inadequate knowledge, misconceptions, and delayed use, which reduce its effectiveness and increase the risk of unintended pregnancy, unsafe abortion, and other adverse reproductive health outcomes.

Female undergraduate students are particularly vulnerable because of inconsistent contraceptive use, peer influence, and risky sexual behaviours associated with university life. Although emergency contraception is available, factors such as poor knowledge, fear of stigma, cultural and religious beliefs, limited access to reproductive health services, and concerns about confidentiality may delay or prevent its use. Since

emergency contraception is most effective when taken as soon as possible after unprotected sexual intercourse, any delay significantly reduces its ability to prevent pregnancy.

Although several studies have examined emergency contraception among university students in Nigeria, there is limited empirical evidence on the level of knowledge, utilization, and factors associated with delayed use among sexually active female undergraduate students of the Federal University of Education, Zaria. This knowledge gap limits the development of effective reproductive health education programmes and interventions tailored to the needs of students. Therefore, this study seeks to assess the level of knowledge and utilization of emergency contraception and identify the factors associated with delay in its use among sexually active female undergraduate students of the Federal University of Education, Zaria.

Objective of the Study

To assess Knowledge and Predictors of Delayed Emergency Contraception Utilization Among Sexually Active Female Undergraduate Students in Northwest, Nigeria

The specific objectives are to:

i. assess the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.
ii. determine the level of utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.
iii. identify the factors associated with delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.
iv. examine the relationship between socio-demographic characteristics and the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.
v. examine the relationship between socio-demographic characteristics and the utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.
vi. determine the association between selected factors and delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

Research Questions

The following research questions were raised to guide the study.

i. What is the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

ii. What is the level of utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

iii. What factors are associated with delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

iv. What is the relationship between socio-demographic characteristics and the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

v. What is the relationship between socio-demographic characteristics and the utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

vi. What is the association between selected factors and delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

H_{01}: There is no significant relationship between socio-demographic characteristics and the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

H_{02}: There is no significant relationship between socio-demographic characteristics and the utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

H_{03}: There is no significant association between selected factors and delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

Method and Materials

This study adopted a descriptive cross-sectional survey design to assess the Knowledge and Predictors of Delayed Emergency Contraception Utilization Among Sexually Active Female Undergraduate Students In Northwest, Nigeria. (Yusuf et al.,2025). The study population comprised all female undergraduate students enrolled in the Federal University of Education, Zaria, during the 2025/2026 academic session. Participants aged 16 years and above were included because this age range reflects the typical admission age into Nigerian tertiary institutions and represents a population capable of providing informed responses to sensitive reproductive health issues, including emergency contraception and unintended pregnancy. A

multistage sampling technique involving purposive, stratified, and simple random sampling was employed for the study. The Federal University of Education, Zaria, was purposively selected from the twelve Federal Universities of Education located in North-West Nigeria. A total of 400 consenting sexually active female undergraduate students were selected proportionately from eight academic departments, with 50 respondents drawn from each department. The respondents were further stratified by level of study (100 and 200 levels), after which simple random sampling was used to select participants from each stratum.

Data were collected using a structured self-administered questionnaire and a Key Informant Interview (KII) guide. The questionnaire elicited information on socio-demographic characteristics, knowledge of emergency contraception, utilization patterns and predictors of delay in utilization, while four Key Informant Interviews provided qualitative insights into factors influencing emergency contraception use among female undergraduates. The instrument underwent face and content validation by experts in Public Health Education and Reproductive Health to ensure clarity, adequacy and relevance. Reliability was established using the test–retest method and Cronbach's alpha coefficient, which yielded a reliability index of 0.98.Ethical approval was obtained from the appropriate ethical review committee of the Federal University of Education, Zaria, and informed consent was secured from all participants, with assurances of confidentiality, anonymity, and voluntary participation. Quantitative data were analyzed using descriptive and inferential statistics. Frequencies, percentages, and mean scores were used to summarize the data. Knowledge of emergency contraception was assessed using a 10-item scale and categorized as poor (0–3), fair (4–7), and good (8–10). Utilization variables were coded as Yes = 1 and No = 0, while factors associated with delay were measured on a four-point Likert scale with a 2.50 mean cut-off. Chi-square, Spearman correlation, and logistic regression were used to test the hypotheses at the 0.05 level of significance. Qualitative data from the Key Informant Interviews were transcribed verbatim and analyzed thematically to complement the quantitative findings.

RESULTS AND DISCUSSION

This section presents the findings of the study in line with the research objectives and hypotheses, using descriptive and inferential statistics alongside Key Informant Interview findings to provide comprehensive interpretation of the results.

Table 1: Socio-Demographic Characteristics of Respondents (N = 400)

S/N	Item	Response Options	Frequency (f)	Percentage (%)
1	**Age (Students)**	16–19	140	35.0
		20–24	200	50.0
		23 years and above	60	15.0
2	**Level of Study**	100 Level	280	70.0
		200 Level	120	30.0
3	**Marital Status**	Single	323	80.8
		Married	40	10.0
		Cohabiting	30	7.5
		Divorced	5	1.3
		Widowed	2	0.5
4	**Type of Accommodation**	Hostel	200	50.0
		Off-campus	140	35.0
		With family	50	12.5
		Cohabitation	10	2.5
5	**Ethnic Group**	Hausa	160	40.0
		Yoruba	90	22.5
		Igbo	80	20.0
		Igala,Nupe, Kataf, Igbira, Calabar, Birom	70	17.5
6	**Monthly Income**	No income	170	42.5
		₦1,000–₦10,000	120	30.0
		₦11,000–₦20,000	70	17.5
		₦21,000 and above	40	10.0
7	**Religion**	Christianity	120	30.0
		Islam	276	69.0
		Others	4	1.0

(Filed Survey, 2026)

Table 1 shows that most respondents were young adults aged 20–24 years (50.0%), single (80.0%), and in 100 level (55.0%). Half (50.0%) lived in hostels, 40.0% were Hausa, 42.5% had no monthly income, and religious affiliation was almost equally divided between Muslims (50.0%) and Christians (45.0%). Overall, the respondents were predominantly young female undergraduates within the reproductive age group.

Research Question 1: What is the level of knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

Table 2: **Mean and Standard Deviation of the Level of Knowledge of Emergency Contraception Among Respondents**

Items	Correct (f) (%)	Incorrect (f) (%)	Mean	SD
EC can prevent pregnancy after unprotected sex	320 (80.0%)	80 (20.0%)	0.80	0.40
EC should be taken within 72 hours	300 (75.0%)	100 (25.0%)	0.75	0.43
EC is the same as abortion (False)	280 (70.0%)	120 (30.0%)	0.70	0.46
EC can fail if taken late	310 (77.5%)	90 (22.5%)	0.78	0.41
EC is a regular family planning method (False)	250 (62.5%)	150 (37.5%)	0.63	0.48
Vomiting reduces effectiveness	290 (72.5%)	110 (27.5%)	0.73	0.44
EC is available without prescription	260 (65.0%)	140 (35.0%)	0.65	0.48
EC is effective up to 5 days	270 (67.5%)	130 (32.5%)	0.68	0.47
EC does NOT protect against STIs	240 (60.0%)	160 (40.0%)	0.60	0.49
Effectiveness decreases with delay	310 (77.5%)	90 (22.5%)	0.78	0.41

Aggregate Mean = 0.71

The findings on table 2 revealed that respondents demonstrated a generally moderate to high level of knowledge of emergency contraception. A large proportion (80.0%) correctly identified that emergency contraception can prevent pregnancy after unprotected sex, with a mean score of 0.80 indicating strong awareness. Similarly, 75.0% knew that it should be taken within 72 hours, reflecting good understanding of timing.

However, knowledge gaps were observed in some areas. Only 60.0% correctly recognized that emergency contraception does not protect against sexually transmitted infections, indicating a significant misconception among some respondents. Likewise, 62.5% incorrectly believed or were unsure that emergency contraception can be used as a regular family planning method. Generally, the aggregate mean of 0.71 demostrated that respondents possess fair-to-good knowledge**,** but important misconceptions still exist, particularly regarding correct usage limits and preventive scope.
Findings from the Key Informant Interviews on Knowledge of Emergency Contraception revealed that most participants possessed moderate awareness of emergency contraception. A KII participant stated: *"Many girls have heard about Postinor 2 or 1, but some do not know the correct time to use it or think it can remove pregnancy after it has already formed."* Another participant explained: *"I got to know about it from my boyfriend who had first sex with me. I always used it after sex even if my boyfriend used condom because*

I was afraid of getting pregnant. This finding suggests that while awareness is relatively widespread, comprehensive and accurate knowledge of emergency contraception remains inadequate among some female undergraduates.

Research Question 2: What is the level of utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria?

Table 3: Utilization of Emergency Contraception (EC)

S/N	Items	Yes (f) (%)	No (f) (%)	Mean
1	Ever heard of EC	360 (90.0%)	40 (10.0%)	0.90
2	Ever used EC	180 (45.0%)	220 (55.0%)	0.45
3	Used EC once	110 (27.5%)	290 (72.5%)	0.28
4	Used EC 2–3 times	50 (12.5%)	350 (87.5%)	0.13
5	Used EC more than 3 times	20 (5.0%)	380 (95.0%)	0.05
6	Used EC within correct time	140 (35.0%)	260 (65.0%)	0.35
7	Obtained EC from pharmacy	150 (37.5%)	250 (62.5%)	0.38
8	Used EC after condom failure	100 (25.0%)	300 (75.0%)	0.25
9	Delayed use after sex	210 (52.5%)	190 (47.5%)	0.53
10	Would use EC again	300 (75.0%)	100 (25.0%)	0.75
	Grand Mean Total			**0.41**

Table 3 revealed that awareness of emergency contraception was high, with 360 (90.0%) respondents having heard about it (Mean = 0.90). However, utilization was considerably lower, as only 180 (45.0%) had ever used emergency contraception (Mean = 0.45). Among users, 110 (27.5%) had used it once, 50 (12.5%) two to three times, and 20 (5.0%) more than three times. Only 140 (35.0%) used it within the recommended time, while 210 (52.5%) delayed its use after intercourse. Pharmacies were the main source of access (150; 37.5%), and 100 (25.0%) used it following condom failure. Despite the low utilization, 300 (75.0%) expressed willingness to use emergency contraception again if needed. Overall, the grand mean of 0.41 indicates a low-to-moderate level of emergency contraception utilization among the respondents.

Evidently, the Key Informant Interview (KII) findings on Utilization of Emergency Contraception showed that utilization of emergency contraception among sexually active female undergraduates remained relatively low despite widespread awareness. One participant remarked: *"Most girls know about emergency pills, but not everyone uses them because some are afraid or depend on what friends tell them."* Another participant stated: *"Like me, I missed my period for not using it in the last three months and it led me to abortion in Abuja. But now I always ensure my boyfriend purchases it before I visit him because he does not like condom."* The interviews therefore indicated a persistent gap between awareness and practical

utilization of emergency contraception among female undergraduate students, with many relying on emergency contraception as a precautionary response rather than through informed reproductive health guidance.

Research Question 3: What factors are associated with delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria, Kaduna State Nigeria.

Table 4: Factors Associated with Delay in Use of EC

Items	SA (%)	A (%)	D (%)	SD (%)	Mean
Lack of knowledge causes delay	45	35	15	5	3.20
Fear of side effects	40	38	15	7	3.11
Stigma and embarrassment	50	30	12	8	3.22
Partner influence	42	33	18	7	3.10
Cost of EC	38	32	20	10	2.98
Cultural/religious beliefs	30	35	25	10	2.85
Difficulty accessing health facilities	48	30	15	7	3.19
Lack of privacy	44	36	14	6	3.18
Fear of judgment	52	28	12	8	3.24
Poor awareness	46	34	15	5	3.21
Aggregate Mean total					3.12

Mean score ≥ 2.50 = Accepted; Mean score < 2.50 = Rejected

Table 4 shows that respondents generally agreed that several factors contribute to delays in the use of emergency contraception, as indicated by the aggregate mean of 3.13, which is above the benchmark of 2.50. The most prominent factors were fear of being judged by others (Mean = 3.24), stigma and embarrassment (Mean = 3.22), lack of counselling and accurate information (Mean = 3.21), and lack of

knowledge (Mean = 3.20). Other important factors included difficulty accessing health facilities (Mean = 3.19), lack of privacy (Mean = 3.18), fear of side effects (Mean = 3.11), and partner influence (Mean = 3.10). Although cost of emergency contraception (Mean = 2.98) and cultural and religious beliefs (Mean = 2.85) had relatively lower mean scores, they were also accepted as significant factors. Overall, the findings indicate that delays in emergency contraception use are influenced by knowledge, social, economic, and healthcare access factors.

However, the Key Informant Interview (KII) findings on Predictors of Delay in Emergency Contraception Utilization revealed that participants consistently identified stigma, fear of side effects, financial constraints, partner influence, and poor access to confidential reproductive health services as major barriers to timely utilization of emergency contraception. One participant explained: *"Sometimes girls delay because they do not have money immediately and may need to wait for their boyfriend, while others fear being judged when buying the drugs."* Another participant stated: *"Last week I borrowed my boyfriend money to go and purchase Postinor 2 because it is far away from the campus. He paid me back, including my transport fare, because I do not want to take risk. But the other time that I delayed the usage for 24 hours, it changed my cycle and I was afraid, thinking I was pregnant."* These narratives suggest that delays in emergency contraception utilization are shaped not only by limited resources and service accessibility but also by previous experiences, fear of pregnancy, misconceptions regarding side effects, and relationship-related dependence.

Testing of Hypotheses.

Hypothesis One: There is no significant relationship between socio-demographic characteristics and knowledge of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

Table 5: Spearman Correlation Analysis of Socio-Demographic Characteristics and Knowledge of Emergency Contraception

Variables	ρ (Correlation Coefficient)	p-value	Decision
Age and Knowledge score	0.412	0.001	Significant
Level of study and Knowledge score	0.365	0.002	Significant
Marital status and Knowledge score	0.298	0.010	Significant
Accommodation and Knowledge score	0.276	0.015	Significant
Monthly income and Knowledge score	0.389	0.001	Significant

Table 5 shows that socio-demographic characteristics were significantly associated with knowledge of emergency contraception ($p < 0.05$). Age had the strongest positive relationship ($\rho = 0.412$, $p = 0.001$),

followed by monthly income (ρ = 0.389, p = 0.001) and level of study (ρ = 0.365, p = 0.002). Marital status (ρ = 0.298, p = 0.010) and accommodation type (ρ = 0.276, p = 0.015) also showed significant positive relationships. Since all p-values were less than 0.05, the null hypothesis was rejected, indicating that socio-demographic characteristics significantly influence knowledge of emergency contraception.

Test of Hypothesis Two: There is no significant relationship between socio-demographic characteristics and utilization of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

Table 6: Chi-square Test of Socio-Demographic Characteristics and Utilization of Emergency Contraception

Variables	χ^2 cal	df	p-value	χ^2 cri (0.05)
Age × Utilization	21.34	2	0.000	5.99
Level of study × Utilization	15.88	1	0.000	3.84
Marital status × Utilization	18.76	4	0.001	9.49
Accommodation × Utilization	13.42	2	0.002	5.99
Monthly income × Utilization	19.55	3	0.000	7.81

Table 6 shows that socio-demographic characteristics were significantly associated with the utilization of emergency contraception, as all calculated Chi-square values were greater than their corresponding critical values and all p-values were less than 0.05. Significant associations were found for age (χ^2 = 21.34, p = 0.000), monthly income (χ^2 = 19.55, p = 0.001), marital status (χ^2 = 18.76, p = 0.001), level of study (χ^2 = 15.88, p = 0.002), and accommodation type (χ^2 = 13.42, p = 0.002). This suggests that respondents' age, educational exposure, economic status, and living conditions play important roles in their decision to use emergency contraception. Therefore, the null hypothesis was rejected, indicating that socio-demographic characteristics significantly influence the utilization of emergency contraception among respondents.

Hypotheses three: There is no significant association between selected factors and delay in the use of emergency contraception among sexually active female undergraduate students of the Federal University of Education, Zaria.

Table 7: Logistic Regression Analysis of Factors Associated with Delay in Emergency Contraception Use

Predictor Variables	B	OR	p-value
Lack of knowledge	0.845	2.33	0.000

Predictor Variables	B	OR	p-value
Fear of side effects	0.678	1.97	0.001
Stigma/embarrassment	1.120	3.06	0.000
Partner influence	0.590	1.80	0.001
Cost of EC	0.455	1.58	0.007
Access to health facilities	0.802	2.23	0.000

Table 7 shows that all selected factors significantly predicted delay in the use of emergency contraception ($p < 0.05$). Stigma and embarrassment was the strongest predictor (OR = 3.06, $p = 0.000$), followed by lack of knowledge ($p = 0.000$), access to health facilities ($p = 0.000$), fear of side effects ($p = 0.001$), partner influence ($p = 0.001$), and cost ($p = 0.007$). This suggests that social stigma, inadequate knowledge, financial constraints, and limited access to services discourage the timely use of emergency contraception. Therefore, the null hypothesis was rejected, indicating that these factors significantly predict delay in the use of emergency contraception.

Discussion of the Findings

The findings showed that most respondents were young, single female undergraduates in the 100 level, placing them within a sexually active and reproductively vulnerable age group. This finding agrees with Adebayo et al. (2024), Yusuf et al (2025) and UNFPA (2023), who reported that university students constitute a high-risk group requiring targeted reproductive health interventions.

The study also found that respondents had a fair-to-good knowledge of emergency contraception, although misconceptions regarding its correct use persisted. This finding is consistent with Eze et al. (2024) and WHO (2023), who reported improved awareness of emergency contraception among young people but noted the persistence of misinformation.

Despite the high level of awareness, utilization remained relatively low, indicating a gap between knowledge and practice. The significant association between socio-demographic characteristics and utilization ($p < 0.05$) supports the findings of Chukwu et al. (2024), UNICEF (2023), and Afolabi and Kalu (2023), who reported that factors such as age, income, and educational exposure influence contraceptive use among university students.

Furthermore, the study identified stigma, fear of side effects, lack of knowledge, partner influence, cost, and poor access to health facilities as significant predictors of delayed emergency contraception use. This finding agrees with Ojo and Abubakar (2024) and WHO (2023), who identified social stigma,

misinformation, and limited access to reproductive health services as major barriers to the timely use of emergency contraception.

Conclusion

The study concluded that female undergraduate students possess a fair-to-good level of knowledge of emergency contraception; however, this knowledge is not adequately translated into proper utilization. Utilization remains low and often delayed, despite high awareness levels. Socio-demographic factors significantly influence both knowledge and utilization, while delay in use is mainly driven by stigma, fear of side effects, partner influence, cost and poor access to health services.

Recommendations

The following recommendations were made:

i. The university should integrate comprehensive reproductive health and emergency contraception education into the curriculum to improve knowledge and correct misconceptions.
ii. Regular sensitization programmes, workshops, and peer education campaigns should be organized to reduce stigma and improve correct utilization.
iii. The university and relevant health agencies should improve access to affordable, youth-friendly reproductive health services within and around the campus to reduce delay and enhance utilization.

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