

Knowledge and Awareness of Levonorgestrel-Based Emergency Contraception (Postinor) Among Women of Reproductive Age

Emmanuel M Akwuruoha^{1*}, David O Akwuruoha², Chisara C Umezurike³, Augustine I Airaodion⁴

¹Department of Obstetrics and Gynaecology, Abia State University Teaching Hospital, Aba, Nigeria

²Babcock University Teaching Hospital, Ilishan-Remo, Ogun State, Nigeria

³Department of Obstetrics and Gynaecology, Rhema University Teaching Hospital, Aba, Abia State, Nigeria

⁴Department of Biochemistry, Lead City University, Ibadan, Oyo State, Nigeria

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***Corresponding author:** Emmanuel M Akwuruoha, Department of Obstetrics and Gynaecology, Abia State University Teaching Hospital, Aba, Nigeria

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ABSTRACT

Background: Emergency contraception, particularly levonorgestrel-based formulations such as Postinor, plays an important role in preventing unintended pregnancies. Despite its availability over the counter in many parts of Nigeria, gaps in awareness, correct knowledge, and persistent misconceptions continue to limit its effective use among women of reproductive age. This study assessed the level of knowledge and awareness of levonorgestrel-based emergency contraception (Postinor) among women of reproductive age in Aba, Abia State, Nigeria, and identified factors associated with adequate knowledge.

Research Methodology: A descriptive cross-sectional study was conducted among 375 women aged 15–49 years using a multistage sampling technique. Data were collected with a structured, pre-tested questionnaire covering socio-demographic characteristics, awareness, knowledge of timing and dosage, mechanism of action, misconceptions, and sources of information. Reliability of the instrument was confirmed with a Cronbach's alpha of 0.87. Data were analyzed using SPSS version 25. Descriptive statistics summarized variables, while chi-square tests, correlation, and logistic regression were used to examine associations and predictors. Statistical significance was set at $p < 0.05$.

Results: The majority of respondents (83.2%) had heard of Postinor, with moderate awareness being most common (32.3%). Friends/peers (23.2%) and pharmacists (19.7%) were the leading initial sources of information, although health workers were the most trusted (35.7%). Knowledge of correct timing (within 72 hours) was observed in 43.7% of respondents, while only 41.9% correctly identified its mechanism as the prevention of ovulation.

Misconceptions were notable, with 45.6% believing it to be abortifacient and 25.6% incorrectly assuming it protects against sexually transmitted infections. Overall, 48.8% demonstrated adequate knowledge, while 25.1% had poor or very poor knowledge. Education level, marital status, age, and occupation were significantly associated with knowledge ($p < 0.05$). Awareness showed a strong positive correlation with knowledge ($r = 0.61$, $p < 0.001$). Predictors of good knowledge included tertiary education (AOR = 2.84), high awareness (AOR = 2.31), and receiving information from health workers (AOR = 1.92), while misconceptions reduced the likelihood of good knowledge (AOR = 0.58).

Conclusion: Awareness and knowledge of levonorgestrel-based emergency contraception is relatively high. This may have contributed to the reduction in the rate on unwanted pregnancy in recent times.

Keywords: Emergency contraception; Levonorgestrel, Postinor; Knowledge; Awareness; Misconceptions

INTRODUCTION

Unintended pregnancy remains a major public health concern globally, particularly in low- and middle-income countries where access to reproductive health information and services is often limited ^[1]. Emergency contraception (EC), especially levonorgestrel-based pills such as Postinor, provides a critical opportunity to prevent pregnancy after unprotected sexual intercourse or contraceptive failure. Unlike routine contraceptive methods used prior to intercourse, emergency contraception is designed as a time-sensitive intervention, typically effective within 72 hours, thereby serving as a last line of defense against unintended pregnancy and its associated consequences ^[2]. Despite its proven effectiveness and availability, EC remains underutilized and poorly understood in many settings, leading to preventable reproductive health challenges.

In Nigeria, the burden of unintended pregnancies is substantial and continues to pose serious health and socio-economic implications ^[3]. It has been estimated that millions of pregnancies occur annually, with a significant proportion being unplanned, particularly among young women. These unintended pregnancies frequently result in induced abortions, many of which are unsafe due to restrictive legal frameworks and limited access to safe abortion services ^[4]. Unsafe abortion contributes significantly to maternal morbidity and mortality, as well as long-term reproductive complications such as infertility and chronic infections. In this context, emergency contraception, particularly levonorgestrel-based formulations like Postinor, represents a vital preventive strategy that could significantly reduce these adverse outcomes if adequately utilized.

Levonorgestrel-based emergency contraceptives have gained prominence due to their safety, ease of use, and widespread availability in pharmacies and health facilities. Evidence from sub-Saharan Africa indicates that these formulations, including Postinor-2 and similar products, are the most commonly used forms of emergency contraception among women of reproductive age ^[2]. Their popularity is largely attributed to their non-invasive nature and accessibility without the need for specialized medical procedures. However, effective use of these medications depends heavily on timely administration and accurate knowledge regarding dosage, mechanism of action, and appropriate time window for use.

Despite the availability of levonorgestrel-based emergency contraceptives in Nigeria, several studies have consistently reported gaps in knowledge and awareness among women. For instance, research conducted among

female students in Nigeria revealed that although over half of respondents had heard of emergency contraception, only a small proportion demonstrated accurate knowledge regarding its timing and correct usage ^[2]. Similarly, another study reported that only about 33.3% of participants were aware of emergency contraception, with an even smaller fraction possessing adequate knowledge and appropriate usage practices ^[5]. These findings highlight a critical disconnect between awareness and comprehensive understanding, which ultimately affects utilization.

In southeastern Nigeria, including areas geographically and culturally similar to Abia State, studies have also documented relatively high levels of awareness but poor depth of knowledge and inconsistent practice. For example, while a significant proportion of respondents recognized Postinor as a form of emergency contraception, only about one-third correctly identified the appropriate time frame for its effectiveness ^[6]. Misconceptions regarding its mechanism, timing, and side effects remain widespread, with some women erroneously believing that it can be used before sexual intercourse or that it causes long-term infertility. These misconceptions not only limit effective utilization but also contribute to negative attitudes and hesitancy toward its use.

The sources of information about emergency contraception further complicate the situation. Evidence suggests that many women obtain information from informal channels such as peers and social networks rather than from healthcare professionals or structured educational programs ^[7,8]. While these informal sources may increase general awareness, they often propagate misinformation and incomplete knowledge, thereby undermining effective decision-making. Limited engagement with healthcare providers also reflects broader systemic issues, including stigma, lack of youth-friendly services, and inadequate reproductive health education.

In Abia State, like many parts of Nigeria, socio-cultural, religious, and educational factors play a significant role in shaping women's knowledge and perceptions of contraceptive methods. Cultural norms that discourage open discussions about sexuality and contraception often restrict access to accurate information, particularly for younger and unmarried women ^[9]. Additionally, variations in educational attainment, urban-rural disparities, and access to healthcare services further influence awareness and utilization patterns. These contextual factors underscore the need for localized studies that explore the specific dynamics affecting knowledge and awareness of emergency contraception in the region.

Given the central role of knowledge in influencing health behavior, understanding the level of awareness and depth of knowledge regarding levonorgestrel-based emergency contraceptives is essential for designing effective interventions. Adequate knowledge not only promotes correct and timely use but also reduces reliance on unsafe abortion practices and improves overall reproductive health outcomes. Conversely, poor knowledge and misconceptions can lead to misuse, underuse, or complete avoidance of this important contraceptive option.

Therefore, this study seeks to assess the knowledge and awareness of levonorgestrel-based emergency contraceptives (Postinor) among women of reproductive age in Abia State. By identifying existing gaps, misconceptions, and influencing factors, the study aims to provide evidence that can inform targeted health education programs, policy formulation, and improved reproductive health service delivery in the region.

MATERIALS AND METHODS

Study Design

A descriptive cross-sectional study design was adopted to assess the knowledge and awareness of levonorgestrel-based emergency contraceptives among women of reproductive age. This design was considered appropriate because it allows for the collection of data at a single point in time and enables the evaluation of prevailing levels of awareness, knowledge, and associated factors within the population.

Study Area

This study was carried out in Aba, a major commercial city in Abia State, southeastern Nigeria. Aba is characterized by a dense population, a mix of urban and peri-urban settlements, and a diverse socio-economic structure. The city hosts several healthcare facilities, pharmacies, and patent medicine stores where levonorgestrel-based emergency contraceptives (commonly known as Postinor) are readily available over-the-counter.

Study Population

The study population comprised women of reproductive age (15–49 years) residing in Aba, Abia State. This group was selected because they represent the primary users of emergency contraception and are at risk of unintended pregnancy. Previous studies in Nigeria have shown that awareness and use of emergency contraception vary widely among women in this age group, with knowledge levels often remaining suboptimal ^[15].

Inclusion and Exclusion Criteria

Inclusion criteria:

- Women aged 15–49 years
- Residents of Aba for at least six months prior to the study
- Those who provided informed consent

Exclusion criteria:

- Women who were seriously ill at the time of data collection
- Women unwilling to participate
- Women outside the reproductive age range

Sample Size Determination

The sample size was determined using Cochran's formula for estimating population proportions, as outlined by Akwuruoha et al. ^[10]:

$$n = \frac{z^2(Pq)}{e^2}$$

The formula components are defined as follows:

- n represents the minimum required sample size.
- Z is set at 1.96, corresponding to a 95% confidence level.
- P denotes the estimated proportion of awareness of emergency contraception in Nigeria.
- e signifies the allowable margin of error, fixed at 5% (0.05).

$$q = 1 - p$$

A recent study conducted by Adewale et al. [5] reported the estimated proportion of awareness of emergency contraception in Nigeria as 33.3%

$$P = 33.3\% = 0.333$$

$$q = 1 - 0.333$$

$$= 0.667$$

$$n = \frac{(1.96)^2(0.333 \times 0.667)}{(0.05)^2}$$

$$n = \frac{3.8416 \times (0.222)}{0.0025}$$

$$n = \frac{0.853}{0.0025} = 341.30$$

The minimum sample size was 341, but it was adjusted to 375 to account for a 10% non-response rate.

Sampling Technique

A multistage sampling technique was employed:

- **Stage 1:** Selection of Aba North and Aba South Local Government Areas.
- **Stage 2:** Random selection of communities/wards within each LGA.
- **Stage 3:** Systematic sampling of households within selected communities.
- **Stage 4:** In households with more than one eligible participant, one respondent was selected using simple random sampling (balloting).

Additionally, some participants were recruited from public places such as markets, health centers, and pharmacies to ensure adequate representation of different socio-economic groups.

Instrument for Data Collection

Data were collected using a structured, pre-tested questionnaire developed based on previous similar studies conducted in Nigeria ^[2].

The questionnaire was developed based on existing literature and adapted to the local context. It comprised seven sections:

- **Section A:** Socio-demographic characteristics
- **Section B:** Awareness of emergency contraception (Postinor)
- **Section C:** Knowledge of timing and dosage
- **Section D:** Knowledge of mechanism of action
- **Section E:** Misconceptions and beliefs
- **Section F:** Sources of information and influence
- **Section G:** Overall knowledge assessment

The instrument included multiple-choice questions, dichotomous (Yes/No) items, and Likert-scale responses to capture varying degrees of knowledge and perception.

Validity and Reliability of the Instrument

Content validity of the questionnaire was ensured through expert review by professionals in reproductive health, public health, and pharmacology. Their input helped refine the clarity, relevance, and cultural appropriateness of the questions.

A pilot study was conducted among 30 women in a neighboring community outside the study area. Feedback from the pilot test was used to revise ambiguous items. The reliability of the instrument was assessed using Cronbach's alpha coefficient, yielding a value of 0.87, indicating acceptable internal consistency.

Data Collection Procedure

Data collection was carried out over a period of 6 weeks by trained research assistants. The purpose of the study was clearly explained to participants, and informed consent was obtained prior to participation. For respondents who were unable to read or write, the questionnaire was administered through interviewer-assisted methods using the local language (Igbo) or English, depending on the participant's preference.

Measurement of Variables

- **Awareness** was assessed using responses to questions on prior knowledge of Postinor and exposure to information sources.
- **Knowledge** was evaluated based on correct responses to questions on timing, dosage, mechanism of action, and appropriate use.
- **Misconceptions** were identified through responses to belief-based statements regarding infertility, STI protection, and safety.

Scoring and Grading of Knowledge

Each correct response was assigned a score of 1, while incorrect or “I don’t know” responses were scored 0. Total knowledge scores were converted to percentages and categorized as follows:

- **Good knowledge:** $\geq 70\%$
- **Moderate knowledge:** 50–69%
- **Poor knowledge:** $< 50\%$

Data Analysis

Data were entered and analyzed using Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the data. Inferential statistics, including chi-square tests, were used to assess associations between socio-demographic variables and levels of knowledge and awareness. A p-value of less than 0.05 was considered statistically significant.

Ethical Considerations

Permission was obtained from community leaders where necessary. Participants were informed about the purpose of the study, assured of confidentiality and anonymity, and told that participation was voluntary. No identifying information was collected, and respondents had the right to withdraw from the study at any point without any consequences.

RESULTS

From the background characteristics, the sample was largely made up of young adults, particularly those aged 20–29 years (**Table 1**), with a good proportion having at least secondary or tertiary education. Despite this relatively

educated population, knowledge outcomes were not as strong as expected, suggesting that formal education alone does not guarantee accurate reproductive health knowledge.

Awareness of Postinor was quite high, with over four-fifths of respondents reporting prior knowledge (**Table 2**). However, when you look more closely, this awareness was mostly moderate rather than high. Information was largely obtained through informal channels such as friends and peers, followed by pharmacists and social media (**Table 2**). Interestingly, although peers were the most common source, respondents expressed greater trust in health professionals, especially health workers and pharmacists (**Figure 1**). This gap between the source of exposure and trusted source has important implications for health communication strategies.

In terms of knowledge, there were noticeable inconsistencies. Less than half of the respondents correctly identified the appropriate timing of use within 72 hours (**Table 3**), and their understanding of dosage was also mixed. Knowledge of the mechanism of action was particularly weak, with only about 42% correctly identifying that Postinor works by preventing ovulation (**Table 4**). A substantial proportion still believed it causes abortion or works by killing sperm, reinforcing the persistence of misinformation.

Misconceptions were indeed a major issue. A considerable number of respondents believed that Postinor could lead to infertility or protect against sexually transmitted infections (**Table 5**). There was also uncertainty about its safety and appropriate use, with some respondents indicating that it could be used as a regular contraceptive method (**Table 5**). These misconceptions are not just minor knowledge gaps; they can directly influence behavior and lead to misuse or avoidance of effective contraception.

When overall knowledge was assessed, only about half of the respondents demonstrated adequate knowledge (**Table 6**), which is relatively low considering the high level of awareness reported earlier. This disconnect highlights the difference between simply having heard of a method and truly understanding how to use it correctly.

The inferential analysis provides further insight. Socio-demographic factors such as age, marital status, education, and occupation were significantly associated with knowledge levels (**Table 7**), with education showing a particularly strong relationship. Correlation analysis reinforced this pattern, showing that awareness, education, and source reliability were positively associated with knowledge, while misconceptions had a negative effect (**Table 8**). In fact, the presence of misconceptions significantly reduced the likelihood of good knowledge.

The regression analysis strengthens these observations. Individuals with tertiary education, higher awareness levels, and those who obtained information from health workers were significantly more likely to have good knowledge (**Table 9**). On the other hand, misconceptions reduced the odds of good knowledge. Age, although positively associated, was not a significant predictor after adjustment, suggesting that knowledge is shaped more by exposure and information quality than by age alone.

The strong association between awareness level and correct usage knowledge (**Table 10**) confirms that increasing awareness is important, but it must be meaningful and accurate awareness. Simply knowing about Postinor is not enough; the quality and reliability of information matter greatly.

Table 1: Socio-Demographic Characteristics of Respondents

Variable	Frequency (n = 375)	Percentage (%)
Age Group		
15–19 years	42	11.2
20–24 years	86	22.9
25–29 years	97	25.9
30–34 years	63	16.8
35–39 years	41	10.9
40–44 years	28	7.5
45–49 years	18	4.8
Marital Status		
Single	168	44.8
Married	149	39.7
Cohabiting	29	7.7
Divorced/Separated	17	4.5
Widowed	12	3.2
Educational Level		
No formal education	21	5.6
Primary	54	14.4
Secondary	142	37.9
Tertiary	158	42.1
Occupation		
Student	112	29.9
Unemployed	47	12.5
Self-employed	86	22.9
Civil servant	51	13.6
Private sector	62	16.5

Other	17	4.5
Religion		
Christianity	268	71.5
Islam	89	23.7
Traditional	11	2.9
Other	7	1.9

Table 2: Awareness of Emergency Contraception (Postinor)

Variable	Frequency	Percentage (%)
Heard of Postinor		
Yes	312	83.2
No	63	16.8
Awareness Level		
Very high	58	15.5
High	96	25.6
Moderate	121	32.3
Low	67	17.9
Very low	33	8.8
Source of First Information		
Friends/Peers	87	23.2
Pharmacist/Chemist	74	19.7
Health worker	49	13.1
Social media	62	16.5
TV/Radio	28	7.5
School	31	8.3
Internet	19	5.1
Family	17	4.5
Religious institution	5	1.3
Other	3	0.8

Table 3: Knowledge of Timing and Dosage

Variable	Frequency	Percentage (%)
Correct timing (within 72 hrs)	164	43.7
Within 24 hrs	71	18.9
Within 48 hrs	83	22.1
After 5 days	17	4.5
Don't know	40	10.7
Effect after 72 hrs		
Effectiveness reduces	182	48.5
Fully effective	49	13.1
Harmful	36	9.6
No effect	28	7.5
Don't know	80	21.3
Correct dosage		
Two tablets at once	146	38.9
One + one after 12 hrs	109	29.1
One tablet only	48	12.8
Multiple doses	21	5.6
Don't know	51	13.6

Table 4: Knowledge of Mechanism of Action

Variable	Frequency	Percentage (%)
Prevents ovulation (correct)	157	41.9
Kills sperm	63	16.8
Causes abortion	82	21.9
Destroys uterus	14	3.7
Don't know	59	15.7
Abortifacient belief (Agree/Strongly agree)	171	45.6
Correct understanding (Disagree/Strongly disagree)	124	33.1

Table 5: Misconceptions and Beliefs

Variable	Response Option	Frequency (n)	Percentage (%)
Infertility belief	Strongly Agree	68	18.1
	Agree	81	21.6
	Neutral	74	19.7
	Disagree	89	23.7
	Strongly Disagree	63	16.8
STI protection	Yes (Incorrect)	96	25.6
	No (Correct)	201	53.6
	Not sure	78	20.8
Safe for all women	Strongly Agree	79	21.1
	Agree	99	26.4
	Neutral	88	23.5
	Disagree	64	17.1
	Strongly Disagree	45	12.0
Use as regular contraceptive	Strongly Agree	41	10.9
	Agree	61	16.3
	Neutral	83	22.1
	Disagree	112	29.9
	Strongly Disagree	78	20.8

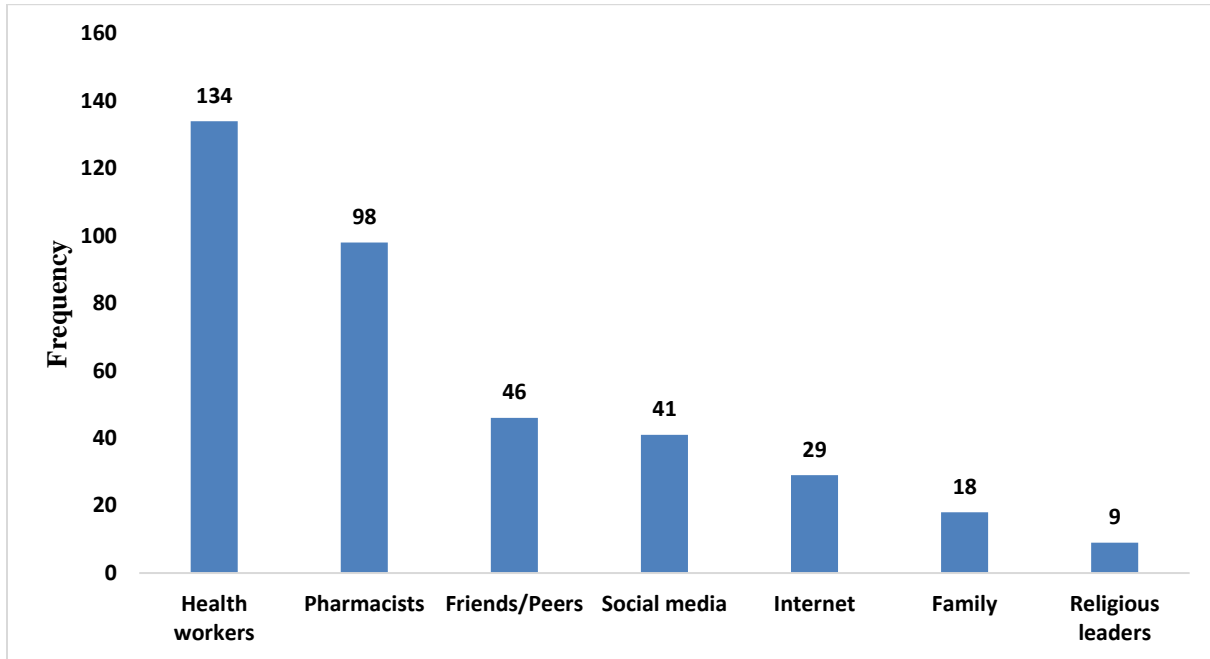


Figure 1: Sources of Information and Trust

Table 6: Overall Knowledge Assessment

Variable	Frequency	Percentage (%)
Excellent	52	13.9
Good	108	28.8
Fair	121	32.3
Poor	67	17.9
Very poor	27	7.2
Adequate knowledge (Yes)	183	48.8
Adequate knowledge (No)	121	32.3
Not sure	71	18.9

Table 7: Association Between Socio-Demographic Factors and Knowledge Level

Variable	χ^2 Value	df	p-value	Interpretation
Age vs Knowledge	18.72	6	0.005	Significant
Marital status vs Knowledge	11.39	4	0.023	Significant

Education vs Knowledge	29.84	3	<0.001	Highly significant
Occupation vs Knowledge	14.67	5	0.012	Significant
Religion vs Knowledge	6.28	3	0.098	Not significant

Table 8: Correlation Analysis

Variables	Correlation Coefficient (r)	p-value	Interpretation
Awareness vs Knowledge score	0.61	<0.001	Strong positive
Education vs Knowledge	0.54	<0.001	Moderate positive
Age vs Knowledge	0.28	0.002	Weak positive
Misconception score vs Knowledge	-0.49	<0.001	Moderate negative
Source reliability vs Knowledge	0.46	<0.001	Moderate positive

Table 9: Logistic Regression Analysis (Predictors of Good Knowledge)

Variable	Adjusted Odds Ratio (AOR)	95% CI	p-value
Tertiary education	2.84	1.76–4.59	<0.001
High awareness level	2.31	1.49–3.58	<0.001
Health worker as source	1.92	1.21–3.05	0.006
Misconceptions present	0.58	0.37–0.89	0.014
Age (≥30 years)	1.36	0.89–2.07	0.152

Table 10: Association Between Awareness and Correct Usage Knowledge

Awareness Level	Good Knowledge	Poor Knowledge	Total	χ^2	p-value
High/Very high	121	33	154		
Moderate	72	49	121	26.51	<0.001
Low/Very low	31	69	100		

DISCUSSION

The findings of this study provide a detailed picture of the current state of knowledge and awareness of levonorgestrel-based emergency contraception (Postinor) among women of reproductive age in Abia State. The socio-demographic profile of respondents shows a relatively young population, with the highest proportion falling within the 20–29 years age group. This pattern is consistent with previous Nigerian studies where reproductive health research is often dominated by younger, sexually active women, particularly students and early-career individuals. Similar age distributions have been reported in studies conducted among undergraduates in southeastern Nigeria, where young adults constituted the majority of respondents due to their increased exposure to reproductive health risks and information channels ^[6]. The relatively high proportion of respondents with tertiary education (42.1%) in this study is notable and may partly explain the relatively high awareness levels observed, as education has consistently been identified as a strong determinant of contraceptive knowledge.

Awareness of Postinor in this study was high (83.2%), which is comparable to findings from southeastern Nigeria where awareness reached 85.1% among university students ^[6]. This suggests that awareness of emergency contraception is increasingly widespread, particularly in southern Nigeria. Despite the high level of awareness, the depth of awareness in this study reveals important gaps. Only 41.1% of respondents reported high or very high awareness, while a substantial proportion had moderate to low awareness. This mirrors earlier findings that awareness does not necessarily translate into accurate or comprehensive knowledge. Previous studies have emphasized that although many women have heard of emergency contraception, detailed understanding of its correct use remains limited ^[11]. The present study reinforces this observation by demonstrating that awareness alone is insufficient to ensure proper knowledge and utilization.

The sources of information identified in this study further highlight this issue. Friends and peers emerged as the most common initial source of information (23.2%), followed by pharmacists and social media. This pattern is consistent with earlier studies in Nigeria, where peers were reported as the dominant source of information, sometimes accounting for over 40% of responses ^[6]. However, reliance on informal sources such as peers is often associated with misinformation and incomplete knowledge. Interestingly, although health workers were not the most common initial source, they were identified as the most trusted source (35.7%), which aligns with existing literature emphasizing the credibility of healthcare professionals in reproductive health education. This gap between access and trust suggests an opportunity to strengthen health system engagement in contraceptive education.

Knowledge of timing and dosage in this study reveals moderate but suboptimal understanding. Only 43.7% correctly identified the 72-hour window for effective use, which is higher than the 34.6% reported in a similar study in southeastern Nigeria ^[6], indicating some improvement over time. However, the presence of misconceptions such as belief in effectiveness after five days or lack of knowledge (10.7%) remains concerning. Similarly, knowledge of correct dosage was inconsistent, with only about two-thirds identifying correct regimens (either two tablets at once

or split dosing). These findings are comparable to earlier Nigerian studies that reported poor knowledge of correct timing and dosing, reinforcing the persistent gap between awareness and correct usage knowledge ^[2].

The understanding of the mechanism of action of Postinor further illustrates this gap. While 41.9% correctly identified that it prevents ovulation, a significant proportion believed it kills sperm (16.8%) or acts as an abortifacient (21.9%). This misconception is widely reported in the literature and has been identified as a major barrier to acceptance and proper use of emergency contraception. In the southeastern Nigeria study, a large proportion of respondents also held incorrect beliefs about the mechanism and safety of emergency contraception ^[6]. The high proportion (45.6%) of respondents in this study who believe that Postinor is abortifacient underscores the persistence of this misconception, which may be influenced by cultural, religious, and moral perceptions surrounding contraception and abortion.

Misconceptions and beliefs identified in this study further reinforce these concerns. Nearly 40% of respondents agreed that Postinor could cause infertility, and about one-quarter believed it could protect against sexually transmitted infections. These findings are consistent with earlier Nigerian studies that reported fears of infertility and health complications as major deterrents to contraceptive use ^[12]. Such misconceptions not only affect knowledge but also influence attitudes and utilization patterns, highlighting the need for targeted educational interventions.

The overall knowledge assessment in this study shows that only 48.8% of respondents had adequate knowledge, with a significant proportion demonstrating fair to poor knowledge. This aligns closely with findings from northern Uganda, where only 39.6% of respondents had good knowledge of emergency contraception ^[13]. The consistency of these findings across different regions suggests that inadequate knowledge of emergency contraception remains a widespread issue in Nigeria, despite increasing awareness. The increased awareness and knowledge of the use of postinor and other contraceptives might be responsible for the reduction in the rate of unwanted pregnancy in Nigeria in recent times. For example, in 2015 Lamina ^[14] reported the prevalence of unwanted pregnancy as 35.9%, while in 2024, Ashimi et al. ^[15] reported a prevalence of 10.0%.

The association between socio-demographic factors and knowledge provides further insight into the determinants of knowledge. Education emerged as a highly significant factor, which is consistent with numerous studies that have identified educational attainment as a key predictor of contraceptive knowledge and use. Age, marital status, and occupation were also significant, reflecting the influence of life experience, social roles, and exposure to reproductive health information. However, religion was not significantly associated with knowledge, which contrasts with some studies that have reported religious beliefs as a barrier to contraceptive use. This discrepancy may reflect differences in study populations or the evolving role of religion in reproductive health decision-making.

The correlation analysis strengthens these findings by demonstrating a strong positive relationship between awareness and knowledge ($r = 0.61$), as well as moderate positive relationships with education and source reliability. Conversely, misconceptions were negatively correlated with knowledge, highlighting the detrimental impact of

misinformation. These relationships are consistent with theoretical frameworks of health behaviour that emphasise the role of accurate information and credible sources in shaping knowledge and practices.

The logistic regression analysis further confirms that tertiary education, high awareness levels, and information from health workers are significant predictors of good knowledge. These findings align with previous research identifying education and access to reliable information as key determinants of contraceptive knowledge. The finding that misconceptions significantly reduce the likelihood of good knowledge underscores the need to address misinformation directly in public health interventions.

The strong association between awareness and correct usage knowledge ($p < 0.001$) observed in this study is consistent with earlier findings that improved awareness can enhance correct use of medication, provided that the information is accurate and comprehensive [16,17]. However, the persistence of knowledge gaps even among those with high awareness suggests that awareness campaigns alone are insufficient without a focus on the quality and accuracy of information.

CONCLUSION

This study demonstrates that while awareness of levonorgestrel-based emergency contraception is relatively high among women in Abia State, significant gaps remain in detailed knowledge, correct usage, and understanding of its mechanism of action. These findings are largely consistent with previous studies in Nigeria, which have repeatedly highlighted the disconnect between awareness and accurate knowledge. The persistence of misconceptions, particularly regarding infertility and abortifacient effects, remains a critical challenge. Addressing these gaps will require targeted, evidence-based educational interventions that leverage trusted sources such as health workers while also correcting misinformation through informal channels such as peers and social media.

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