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Original Research Article

Knowledge, perception and the utilization of immediate postpartum family planning among pregnant and postpartum women in Ogbomoso, southwest Nigeria

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ABSTRACT

Background: The postpartum period is frequently characterised by a heightened risk of unintended pregnancies and unmet contraceptive needs, and women who wish to delay or avoid subsequent pregnancies soon after childbirth often lack access to timely and effective family planning information and services. This study aimed to determine the knowledge, perception, and utilisation of immediate postpartum family planning (IPFP) amongst pregnant and postpartum women in Ogbomoso, Oyo State.

Methods: A cross-sectional, descriptive multi-stage study design was conducted in selected hospitals in Ogbomoso, southwest Nigeria. Data obtained using a self-administered structured questionnaire were analysed using IBM SPSS version 26, and the results obtained were presented in tables. The level of significance was set at 0.05.

Results: The findings in this study revealed that a larger number of respondents had good knowledge of postpartum family planning (83.30%), while a smaller number (16.70%) had poor knowledge. Regarding utilisation, despite the high level of knowledge demonstrated in this study, only 43.60% of respondents had used any method of IPFP, while 56.4% had not.

Conclusions: The high level of knowledge demonstrated by the participants in this study did not translate into the uptake of postpartum contraceptives. The study emphasises the need for improved access to diverse IPFP options to enhance utilisation.

Keywords: Family planning, Immediate postpartum, Utilization

INTRODUCTION

The postpartum period, especially the time immediately following childbirth, represents a unique intersection of risk and opportunity in a woman's reproductive life. In many low and middle-income countries, including Nigeria, this phase is frequently characterised by a heightened risk of unintended pregnancies and unmet contraceptive needs.¹ While many women wish to delay or avoid subsequent pregnancies soon after childbirth, they

often lack access to timely and effective family planning services.¹ This gap between intention and access poses a serious threat to maternal and child health outcomes. However, the postpartum period also presents a valuable opportunity to counsel and initiate women on modern contraceptive methods, particularly because it coincides with multiple interactions with the health system.²

In a country like Nigeria, which continues to battle high rates of maternal mortality and rapid population growth,

strengthening family planning services during the immediate postpartum period is both a public health imperative and a strategic intervention. Integrating family planning into maternal health services, especially at the point of delivery and before discharge, can help reduce the incidence of closely spaced and unintended pregnancies, thus improving maternal and neonatal health indicators.^{3,4} The practice of family planning is central to reproductive health. It plays a vital role in reducing maternal and infant mortality, improving child health, empowering women, and contributing to economic development. In Nigeria, where maternal mortality remains unacceptably high and contraceptive prevalence remains low, scaling up postpartum family planning services is a necessary strategy to safeguard maternal and child health.⁵⁻⁸

Despite national and global efforts to integrate postpartum family planning (PPFP) into maternal and child health services, the uptake of immediate postpartum contraception remains unacceptably low.⁹⁻¹¹ This lack of knowledge is often due to missed counselling opportunities during antenatal care or inadequate postpartum follow-up. Without proper education, women are discharged from health facilities without ever learning about the full range of options available to them during this critical time.^{12,13}

This study aimed to determine the knowledge, perception, and utilisation of immediate postpartum family planning (IPFP) amongst pregnant and postpartum women in Ogbomosho, Oyo State.

METHODS

Study design

It was a descriptive cross-sectional study.

Study area

The study was carried out in selected hospitals in Ogbomosho, southwestern Nigeria.

Study period

This study was carried out from 1st June 2025 to 30th June 2025.

Inclusion criteria

Participants who were pregnant or in the immediate postpartum period. Participants must be women of reproductive age. Participants who gave consent to participate in the study.

Exclusion criteria

Women who decline or were not willing to participate. Women who were not psychologically or physically

stable. Women who were not present at the selected hospitals during the data collection period.

Detailed procedure

Sample size determination

The sample size design was determined using Leslie Fischer's formula for the calculation of sample size for the population, which was greater than 10,000.

Hence, $n = z^2 pq / d^2$

n = minimum sample size

z = standardized normal deviate (the value was 1.96 at 95% confidence interval).

p = 0.2 (estimated proportion of women aware of immediate postpartum family planning (0.2, based on previous studies).¹⁴

d = 0.05

q = 1 - p which is 0.8

Finally, calculate n :

$n = (3.8416 \times 0.16) / 0.0025$

$n = 0.614656 / 0.0025$

$n \approx 245.86$

$n \approx 246$

A 10% non-response rate for assumed and this was added to the initial minimum sample size calculated. As shown below:

246×1.1 (10% increase) ≈ 271

The sample size for this study was 271.

Sampling technique

A multistage sampling technique was employed in this study.

Stage 1: selection of two local governments from the five LGAs in Ogbomosho using a simple random sampling technique. Ogbomosho North and Ogbomosho South were selected.

Stage 2: determination of the number of healthcare facilities in each selected local government. Ogbomosho North has several public and private tertiary-level hospitals, while Ogbomosho South also hosts a number of secondary healthcare centres.

Stage 3: a total of eight hospitals were selected- four from Ogbomoso North and four from Ogbomoso South- using simple random sampling (balloting).

Stage 4: samples were selected in each hospital based on proportionate allocation. The number of participants selected from each hospital was based on the volume of antenatal and postpartum patients seen per month. For instance: hospital A (12%) =32 respondents, hospital B (10%) =27 respondents, hospital C (15%) =41 respondents, hospital D (8%) =22 respondents, hospital E (10%) =27 respondents, hospital F (15%) =41 respondents, hospital G (16%) =43 respondents, hospital H (14%) =38 respondents.

This approach ensured fair representation of pregnant and postpartum women across the selected health facilities, and final participant selection was with systematic random sampling.

Ethical approval

A letter of approval was obtained from the department of obstetrics and gynaecology. Ladoke Akintola University of Technology (LAUTECH), which was taken to the health facilities for approval to carry out the study. Consent was obtained from the participants before they were allowed to participate in the study.

Data collection and analysis

The questionnaires were sorted, cleaned and entered into a computer, and the obtained variables were analysed using IBM SPSS version 26. Frequency distribution tables and/or charts were generated from the variables or results obtained

RESULTS

A total of 275 questionnaires were administered, and all were properly filled out. This accounts for a 100% response rate.

Table 1 presents the sociodemographic characteristics of the participants. The age distribution reveals that the majority of the respondents were within the 25-34 age group (50.20%), followed by those below 25 years (29.10%). A smaller proportion fell within the 35-44 age group (18.90%), and only 1.8% were 45 years and above, indicating that most of the participants are within their reproductive age, which aligns with the focus of the study. In terms of religion, a greater proportion identified as Christians (56.40%), while 37.80% were Muslims. A minority (5.80%) adhered to traditional beliefs, and no respondents indicated other religions. Regarding marital status, most participants were married (62.90%), while 24.40% were single and 12.70% were divorced. Ethnically, Yoruba women formed the majority (72.00%),

followed by Igbo (18.90%) and Hausa (9.10%). Educationally, more than half had tertiary education (57.10%), with others completing secondary (30.90%) and primary education (12.00%). Occupationally, participants were mainly artisans (30.50%) and traders (23.60%), with civil servants, bankers, engineers, and students making up the remainder.

Table 1: Sociodemographic characteristics of the participants (n=275).

Variables	Categories	Frequency	Percentage
Age (in years)	<25	80	29.10
	25-34	138	50.20
	35-44	52	18.90
	45 and above	5	1.80
Religion	Christianity	155	56.40
	Islam	104	37.80
	Traditional	16	5.80
	Others	0	0.00
Marital status	Married	173	62.90
	Single	67	24.40
	Divorced	35	12.70
Ethnic group	Yoruba	198	72.00
	Igbo	52	18.90
	Hausa	25	9.10
Education	Tertiary	157	57.10
	Secondary	85	30.90
	Primary	33	12.00
Occupation	Artisan	84	30.50
	Trader	65	23.60
	Civil servant	48	17.50
	Banker	35	12.70
	Engineer	30	10.90
	Student	13	4.70

Nearly all respondents (98.20%) had heard of family planning in general, and a substantial proportion (84.40%) were familiar with immediate postpartum family planning (IPFP). Furthermore, 83.60% correctly understood that IPFP refers to using contraceptive methods within two days after delivery. In terms of method-specific knowledge, the most recognised method was the condom (36.70%), followed by implants (27.60%) and progesterone-only pills (11.60%). Less than 3% of respondents recognised male vasectomy and female sterilisation as IPFP methods, reflecting poor knowledge or cultural resistance to permanent contraceptive methods.

To quantify this, a composite knowledge score was generated using three key indicators: (1) understanding the definition of IPFP, (2) having heard about family planning, and (3) having heard about IPFP specifically. Based on this, 83.30% of respondents were classified as having “good knowledge”, while 16.70% had “poor knowledge”.

Table 2: Knowledge of respondents on immediate family planning in postpartum women.

Question	Categories	Frequency	Percentage
Understood IPPFP means FP within 2 days after birth	Yes	230	83.60
	No	45	16.40
Have you heard about family planning?	Yes	270	98.20
	No	5	1.80
Have you heard about immediate postpartum family planning methods?	Yes	232	84.40
	No	43	15.60
Knowledge of IPPFP methods (select all that apply)	Condom	101	36.73
	Lactational amenorrhea	21	7.64
	Implants	76	27.64
	Progesterone-only pills	32	11.64
	Intrauterine Device (IUD)	30	10.90
	Male Vasectomy	7	2.55
	Female Sterilisation	8	2.90
Overall level of knowledge	Good knowledge	229 (83.30%)	
	Poor knowledge	46 (16.70%)	

Table 3: Sources of information about family planning among participants.

Source	Frequency	Percentage
Friends	28	10.20
Social media	52	18.90
Health workers	140	50.90
Family members	55	20.00

As seen in Table 3, respondents reported a variety of sources from which they obtained information about family planning. Health workers emerged as the primary source (50.90%), highlighting their critical role in educating women about postpartum contraception. Social media (18.90%) and family members (20.00%) also played substantial roles. The relatively high influence of

informal sources like friends (10.20%) and family members may point to potential risks of misinformation.

Despite the high level of knowledge demonstrated in earlier tables, only 43.60% of respondents had used any method of IPPFP, while 56.4% had not. This reveals a significant knowledge-practice gap, where awareness does not necessarily translate into action. Among those who had used IPPFP methods, condoms were the most commonly used (70.80%), followed by implants (17.50%). IUDs and hormonal methods like lactational amenorrhea and progesterone-only pills were less commonly used, and permanent methods were not used at all. The utilisation scores categorised respondents as having “good utilisation” if they reported use of any IPPFP method. The result showed 43.60% with good utilisation and 56.40% with poor utilisation, which corroborates the earlier point of a gap between knowledge and behaviour.

Table 4: Utilisation of immediate family planning in postpartum women and common methods used.

Question	Category	Frequency	Percentage
Have you used any IPPFP method?	No	155	56.40
	Yes	120	43.60
Which method have you used?	Condom	85	70.80
	Implants	21	17.50
	IUD	6	5.00
	Lactational amenorrhea	4	3.30
	Progesterone-only pills	4	3.30
	Male vasectomy	0	0.00
	Female sterilisation	0	0.00
Overall level of utilisation	Good utilisation	155 (43.60%)	
	Poor utilisation	120 (56.40%)	

Table 5: Factors that determine utilisation of postpartum family planning among participants.

Questions	Categories	Frequency	Percentage
Safe measures against pregnancy	Yes	240	87.30
	No	35	12.70
Available in nearby hospitals	Yes	200	72.70
	No	75	27.30
Religion allows IPPFP	Yes	239	86.90
	No	36	13.10
Think side effects exist	Yes	180	65.50
	No	95	34.50
Perceived side effect	Ill health	68	24.70
	Breastfeeding issue	59	21.50
	Weight gain	53	19.30
	None	95	34.50

Table 6: Crosstabulation between educational level and overall, knowledge.

Education	Good knowledge	Poor knowledge	Total	Chi-square	Df	P value
Primary	25	8	33	6.02	2	0.049
Secondary	72	13	85			
Tertiary	132	25	157			
Total	229	46	275			

Table 7: Relationship between the overall level of knowledge and the overall level of utilisation of IPPFP among the participants.

Knowledge level	Good utilisation	Poor utilisation	Total	Chi-square	Df	P value
Good knowledge	110	119	229	7.84	1	0.005
Poor knowledge	10	36	46			
Total	120	155	275			

Table 5 explores key influencing factors. A large proportion of respondents (87.30%) believed IPPFP is a safe strategy, and 72.70% confirmed availability in their nearby hospitals. These are positive indicators for potential programmatic uptake. Religious beliefs did not appear to be a major hindrance, with 86.90% indicating their faith supports IPPFP. However, concerns about side effects were evident; 65.50% believed side effects exist. Among the perceived side effects, ill health (24.70%), breastfeeding complications (21.50%), and weight gain (19.30%) were the most cited. Such perceptions, whether evidence-based or not, may discourage uptake. The finding that 34.50% of respondents denied any side effects.

There was a statistically significant association between the level of education and knowledge of IPPFP ($p < 0.05$). Participants with higher levels of education were more likely to demonstrate good knowledge of IPPFP.

A statistically significant relationship was found between knowledge level and utilisation of IPPFP clinical trial number: not applicable ($p < 0.01$). Participants with good knowledge were significantly more likely to use postpartum family planning methods.

There was no statistically significant relationship between marital status and the specific IPPFP method used ($p > 0.05$).

DISCUSSION

Sociodemographic characteristics

The majority (50.20%) of participants were between 25-34 years old, which is within the reproductive age group. Christians made up the largest proportion (56.40%), followed by Muslims (37.80%). Most participants were married (62.90%), which may influence family planning decisions. Yoruba women dominated the sample (72.00%), reflecting the demographic profile of the study location. Over half of the participants had tertiary education (57.10%). Higher education levels have been strongly associated with better knowledge and awareness of family planning options. Participants were mainly artisans (30.50%) and traders (23.60%). In the literature reviewed, there was no emphasis on the effect of sociodemographic characteristics on the knowledge, perception and utilisation of immediate postpartum family planning services.

Knowledge of immediate postpartum family planning

Our study revealed that over 98.2% of our respondents had heard of family planning, while 84.4% were familiar with immediate postpartum family planning methods. This is similar to the study in Rwanda, which found that the knowledge about IPPFP among healthcare workers was generally high. Furthermore, most of the respondents correctly understood that IPPFP refers to using contraceptive methods within two days after delivery.¹⁵ In terms of method-specific knowledge, the most recognised method was the condom (36.70%), followed by implants (27.60%) and progesterone-only pills (11.60%). Less than 3% of respondents recognised male vasectomy and female sterilisation as IPPFP methods, reflecting poor awareness or cultural resistance to permanent contraceptive methods.

Also, a study conducted among refugee women on the Thailand-Myanmar border in 2015, involving 978 participants, revealed that over 90% were aware of IPPFP.¹⁶ Another study at the University of Port Harcourt Teaching Hospital in 2020 revealed a 57.56% awareness rate among postpartum women.¹⁷

Our research further showed that a significant number of participants reported receiving information from health workers (50.9%), affirming the central role healthcare professionals play in promoting awareness. Other sources included family members (20.0%), social media (18.9%), and friends (10.2%), reflecting a combination of formal and informal channels of communication.

Previous Studies didn't pay much attention to the knowledge of immediate postpartum family planning among pregnant and postpartum women. The studies were focused on the acceptance and utilisation of immediate postpartum family planning.

Our study further showed that the knowledge of immediate postpartum family planning among pregnant and postpartum women is relatively high. However, when examining the timing of the awareness, only 30.4% received information during antenatal care (ANC) and 20.3% immediately after delivery, while 49.3% reported receiving no information at all. Regarding the level of knowledge majority of the respondents (83.30%) had good knowledge, while a few (16.70%) had poor knowledge. This indicates that while awareness is generally high, there is still a need to deepen understanding, especially around method options and specific timing for IPPFP initiation.

Perception of immediate postpartum family planning

Our study revealed that 87.30% of respondents believed IPPFP is a safe strategy. Religious beliefs did not appear to be a major hindrance, with 86.90% indicating their faith supports IPPFP. However, concerns about side effects were evident, with 65.50% believing side effects exist. Among the perceived side effects, ill health (24.70%), breastfeeding complications (21.50%), and weight gain

(19.30%) were the most cited. Such perceptions, whether evidence-based or not, may discourage utilisation of IPPFP, which is similar to previous studies that state that the factors influencing perception of immediate postpartum family planning are cultural and religious norms, which have misbelieved such as contraceptives causing infertility, weight gain, or hindering breastfeeding, reducing acceptance.

About utilisation of immediate postpartum family planning, our study revealed that nearly all respondents (98.20%) had heard of family planning in general, and a substantial proportion (84.40%) were familiar with immediate postpartum family planning (IPPFP). Despite the high level of knowledge, only 43.60% of respondents had used any method of IPPFP, while 56.4% had not. This reveals a significant knowledge-practice gap, where knowledge does not necessarily translate into action, which is similar to a study conducted among refugee women on the Thailand-Myanmar border.¹⁶

Our study also revealed that among those who had used IPPFP methods, condoms were the most commonly used (70.80%), followed by implants (17.50%). IUDs and hormonal methods like lactational amenorrhea and progesterone-only pills were less commonly used, and permanent methods were not used at all.

Factors influencing the utilization immediate postpartum family planning

Our study revealed that a large proportion of respondents (87.30%) believed IPPFP is a safe strategy, and 72.70% confirmed availability in their nearby hospitals. Religious beliefs did not appear to be a major hindrance, with 86.90% indicating their faith supports IPPFP. However, concerns about side effects were evident; 65.50% believed side effects exist. Among the perceived side effects, ill health (24.70%), breastfeeding complications (21.50%), and weight gain (19.30%) were the most cited. Such perceptions, whether evidence-based or not, may discourage uptake as compared to previous studies, which stated that some of the factors influencing utilisation are availability and accessibility, proximity to facilities, availability of contraceptive options, and service hours play a major role.

Considering the relationship between the level of education and knowledge of IPPFP, findings from this study revealed that educational attainment enhances awareness and understanding of postpartum contraceptive practices ($p < 0.05$). The association between knowledge level and utilisation of IPPFP ($p < 0.01$) emphasises the importance of knowledge dissemination and awareness campaigns to bridge the gap between information and action. These corroborate findings in other similar studies.¹⁵⁻¹⁷

Limitations

Social desirability bias

Respondents' answers may have been influenced by social norms, potentially leading to over-reporting of desirable behaviours or under-reporting of undesirable ones.

Participant reluctance

Participants' hesitation to discuss family planning may have resulted in incomplete or inaccurate data.

Reliance on self-reported data

The study relied on self-reported data, which may be subject to biases, recall errors, or social desirability bias.

CONCLUSION

This study from a cross-sectional hospital-based survey involving 275 women in Ogbomoso shows that knowledge of family planning was high (98.2%), with 83.3% demonstrating good knowledge of IPPFP. Despite this, only 43.6% reported actual use of IPPFP methods. Overall, the study emphasises the need for improved health education and access to diverse IPPFP options to enhance utilisation.

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