

## **Assessment of Postpartum Family Planning Options and uses among Women in Selected Hospitals in Ilorin, Kwara State**

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**Abstract:** *Postpartum family planning (PPFP) represents a critical component of maternal healthcare, offering women the opportunity to prevent unwanted pregnancies and optimize birth spacing during the postpartum period. Despite its importance in reducing maternal and infant mortality, the uptake of PPFP services remains suboptimal in many developing countries, including Nigeria. This study assessed the postpartum family planning options and the uses among women in selected hospitals in Ilorin, Kwara State, with specific focus on examining the current contraceptive use and identify postpartum family planning options adopted by women at selected hospitals in Ilorin, Kwara State. A cross-sectional study design was employed to investigate PPFP options among women attending selected hospitals in Ilorin, Nigeria. Statistical analysis was conducted using chi-square tests to determine associations between variables, with significance set at  $p < 0.05$ . The study found that several socio-demographic factors age, religion, ethnicity, occupation, number of children, and monthly income had significant associations with postpartum family planning (PPFP) choices, while education and marital status did not. Contraceptive use among respondents was low, with only 25.8% using any method, while the majority (74.2%) were non-users. Among those who used contraceptives, withdrawal was the most common method, followed by emergency pills, implants, condoms, and natural methods. This study found Postpartum contraceptive use remains low despite the influence of key socio-demographic factors on method choice. This highlights the need for targeted interventions that address barriers to contraceptive use and promote effective family planning methods among postpartum women in Ilorin, Nigeria*

**Keywords:** postpartum family planning (PPFP), maternal healthcare, birth spacing, unwanted pregnancies, postpartum period, maternal mortality, infant mortality

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## INTRODUCTION

Although the journey of motherhood is sometimes hailed as a time of happiness and fresh starts, there are serious health dangers associated with it, particularly when pregnancies are closely spaced. The use of contraceptive techniques during the first 12 months following childbirth in order to prevent unwanted pregnancies and guarantee the best possible health outcomes for both mothers and children is known as postpartum family planning, or PPFP (World Health Organization (WHO), 2025). This time frame is crucial for the health of mothers and children, providing a special chance to incorporate family planning services and lower morbidity and mortality rates in mothers and infants (Amuzie et al., 2023). In order to avoid closely spaced births, which are linked to negative health outcomes like low birth weight, premature birth, and an increase in maternal difficulties, effective postpartum contraception is crucial (Cleland et al., 2022). By preventing undesirable pregnancy, family planning averts maternal and childhood deaths and helps a woman decide freely and conscientiously about her pregnancy spacing and parity.

Approximately 61% of women worldwide have unmet family planning needs in the first year following childbirth, indicating that postpartum contraceptive usage is still below ideal levels (Silesh et al., 2022). This problem is especially serious in undeveloped or underdeveloped nations, particularly in Sub-Saharan Africa, where postpartum women utilize contemporary contraceptives far less frequently than in rich

nations (Anate et al., 2021). Nigeria has one of the lowest modern contraceptive prevalence rates (MCPR) in the world, with only 12% of married women utilizing contemporary family planning techniques (Idowu et al., 2020). Additionally, there are greater chances to contact postpartum women who might not otherwise seek family planning services when family planning services are integrated with regular medical visits, such immunization treatments (Pfitzer et al., 2019). To encourage family planning, the Nigerian government has put in place a number of initiatives, including the "National Family Planning Blueprint (2020-2024)" and free contraception programs (Ross et al., 2022). Such integration efforts not only increase access to PFP services but also enhance the overall health care experience for women and their families. Thus, postpartum family planning is a critical component of reproductive health, particularly in countries like Nigeria, where maternal and infant mortality rates remain high. Despite significant efforts to improve access to family planning services, uptake remains low, particularly among postpartum women in Nigeria, including Ilorin.

## MATERIALS AND METHODS

The research study adopted the cross-sectional descriptive research design to assess the postpartum family planning options and uses among women in selected hospitals in Ilorin, Kwara State. The research was carried out in Ilorin which was a major city located in Kwara Central Senatorial District. Ilorin is the capital of Kwara State and there were five Local Government Areas in Ilorin among which is the Ilorin-South where the study was carried out. Ilorin-South Local Government Area has eight hospitals and two hospitals were purposively selected for this study because of the location, inflow of clients and the type of services rendered. These Hospitals were Kwara State University Teaching Hospital and Sobi Specialist Hospital.

The target population for this research were women that attended clinic in Kwara State University Teaching Hospital and Sobi Specialist Hospital in Ilorin-South, Ilorin, Kwara State. The average number of women attending KWASUTH and Sobi Specialist Hospital in the last six months were 704 and 632 respectively, making a total of 1336 women. The sample size was determined using Andrew Fisher's formula for estimating single proportions and the formula for estimating the minimum sample size. The standard normal deviation was set at a 95 % confidence level, with the allowable margin of error of 5 %.

The Fisher's formula is;

$$S = n/1+n/N$$

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

Where:

$z$  = the standard normal deviation which is set at 1.96 (this corresponds to 95% confidence level)

$p$  = true proportion of factor in the population or expected frequency value (0.80)

$d$  = 0.05

$N$  = target population= 1336

$n$  = number of samples ( )

$q = 1-p = 0.82$

$$n = (1.96)^2 \times 0.8 \times 0.2 / 0.0025$$

$$n = 0.6146 / 0.0025$$

$$n = 245.86$$

$$n = 246$$

$$S = n / 1 + n/N$$

$$S = 245.86 / 1 + 245.86/1336$$

$$S = 245.86 / 1.7373$$

$$S = 208 \text{ participants}$$

$$\text{Attrition} = 10/100 \times 208 \\ = 20.8$$

$$\text{Sample size estimation} = S + \text{attrition size} = 208 + 20.8 = 228.8$$

The sample size used for this study was =229

Respondents for the study were selected using a purposive sampling technique, targeting postpartum mothers who met specific eligibility criteria. Inclusion criteria comprised women who had given birth within the last 12 months, those attending clinics at the selected hospitals in Ilorin, Kwara State, and those who expressed willingness to participate in the study. Conversely, women who were mentally or physically unstable, as well as those experiencing communication difficulties, were excluded to ensure the reliability and validity of the data collected.

The instrument used was a self-structured questionnaire which was developed by the researcher after extensive literature review. The questionnaire consisted fifty-three item questions of Sections A to E. Section A was designed to elicit information on socio-demographic characteristics and reproductive history, containing eight item questions. Section B assessed current contraceptive usage and it consists of nineteen item questions. Section C identified post-partum family planning option adopted and it consists of eleven item questions. Section D identified factors associated with post-partum family planning options and contained eleven items and Section E assessed health system factors associated with post-partum family planning options and contained four items.

Content validity was ensured through literature review, while face validity was assessed by experts, and the instrument was revised based on their feedback. The instrument's reliability was tested using a test-retest method on 23 women outside the study area, and reliability was confirmed using Cronbach's Alpha, with a coefficient of 0.80 and above considered acceptable. Data were collected from 229 participants in two purposively selected hospitals in Ilorin using a self-structured English questionnaire. Informed consent was obtained, and data collection was conducted by the researcher with trained assistants and interpreters where needed, with all questionnaires completed and retrieved immediately. The questionnaires were analyzed using Statistical Product and Service Solution (SPSS) version 23. The result was presented using descriptive statistics which was presented in form of figures and tables. Inferential statistics in form of chi square was used to test the stated hypotheses.

An ethical clearance and permission letter was collected from the Head of Department of Nursing Science, University of Ilorin with UERC Approval Number: UERC/ASN/2025/3267. The letter was taken to the ethical committee of the Kwara State University Teaching Hospital and Sobi Specialist Hospital, Ilorin for approval with approval number KWASUTH/IRC/246/VOL.II/58 before the questionnaire was administered. Respondents were adequately informed about the purpose of the research and the fact that they have a choice to participate or not. They were assured that the information provided by them would be kept confidential. Information collected was treated with the utmost confidentiality and respondents' anonymity was maintained.

## RESULTS

Table 1 below shows the socio-demographic characteristics of respondents in selected hospitals in Ilorin, Kwara State. The respondents were aged 18–55 years, with a mean age of  $30.9 \pm 5.89$  years, and younger women (53.5%) formed a slightly higher proportion than adults (46.5%). Most respondents were Muslims (63.6%), followed by Christians (36.4%). The majority were Yoruba (83.4%), with smaller proportions of Igbo (10.1%), other tribes (4.1%), and Hausa (2.3%). Most respondents were educated, with 69.6% holding degrees, while others had secondary (18.9%), primary (6.5%), or no formal education (5.1%). In terms of occupation, trading was most common (36.4%), followed by other unspecified jobs (22.6%), civil service (16.6%), teaching (15.2%), and farming (9.2%). Most respondents were married (87.1%), with fewer unmarried (7.4%), divorced (3.7%), and widowed (1.8%). Regarding number of children, most had two children (33.6%), followed by those with one or none (18.4% each), while smaller proportions had three or more children. In terms of income, the largest group earned 31,000–40,000 (30.4%), followed by those earning above 50,000 (26.7%), with fewer respondents in other income ranges.

**Table 1: Socio-demographic Data of Respondents**

Variable	Option	Frequency	Percent
Age	Young	116	53.5
	Adult	101	46.5
Religion	Christianity	79	36.4
	Islam	138	63.6
Ethnicity	Yoruba	181	83.4
	Hausa	5	3.2
	Igbo	22	10.1
	Others	9	4.1
Education	No formal education	11	5.1
	Primary	14	6.5
	Secondary	41	18.9
	Tertiary	151	69.5
Occupation	Civil servant	36	16.4

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	Trader	79	36.4
	Farmer	20	9.2
	Teacher	33	15.2
	Others	49	22.6
<b>Marital Status</b>	Single	16	7.4
	Married	189	87.1
	Divorce	8	3.7
	Widow	4	1.8
<b>No of Children</b>	0-4	200	92.1
	5-9	17	7.9
<b>Monthly Income</b>	Less than 30,000	52	24
	31-40,000	66	30.4
	41-50,000	41	18.9
	>50,000	58	26.7

Table 2 indicated that 56 (25.8%) of the women were using contraceptive, while 161 (74.2%) more post-partum women were not using contraceptive.

**Table 1: Use of contraceptives by post-partum women**

Usage	Frequency	Percent
Not used	161	74.2
Used	56	25.8

Table 3 shows that only a few respondents used contraceptives, with withdrawal being the most common (27.2%), followed by emergency pills, implants, condoms, and natural methods, while the majority were not using any method.

**Table 3: Methods of contraceptive used among post-partum women**

Variable	Yes		No	
	Frequency	Percent	Frequency	Percent
Diaphragm	9	4.10	208	95.90
Spermicide	4	1.80	213	98.20
Oral contraceptive pills	16	7.40	201	92.60
Contraceptive patch	8	3.70	209	96.30
Vagina ring	5	2.30	212	97.80
Implants	21	9.70	195	90.40
Copper IUCDs	10	4.60	207	95.40
Withdrawal method	59	27.20	158	72.90
Emergency pills	24	11.10	193	88.90
Cervical cap	2	0.90	215	99.10
Female condoms	15	6.90	201	92.70
Male condoms	19	8.80	198	91.20
Lactation Amenorrhea	15	6.90	202	93.10
Natural method e.g. Bead	19	8.80	198	91.30

Table 4 shows that postpartum women used a variety of family planning methods, with withdrawal (25.3%) and condoms (24.4%) being the most common. Other methods like implants, injectables, progestin-only pills, and natural methods were used less frequently. Overall, most women preferred less reliable methods, avoiding scientifically proven contraceptives, often due to health concerns or side effects.

**Table 4: Family planning options adopted among post-partum women**

Variable	Yes		No	
	Frequency	Percent	Frequency	Percent
Progestin only pills	16	7.40	201	92.60
Injectable e.g Depo provera	17	7.80	200	92.20
Intrauterine devices	9	4.10	208	95.50
Implants e.g jadelle, Implanon	23	10.60	194	89.40
Tubal ligation	3	1.40	214	98.60
Body-basal temperature	3	1.40	214	98.60
Calender rhythm method	28	12.90	189	89.70
Condoms	53	24.40	164	75.60
Cervical mucus	8	3.70	209	96.30
Lactation Amenorrhea	19	8.80	198	91.20
Withdrawal method	55	25.30	162	74.70

Table 5 examined the association between socio-demographic characteristics and family planning options among post-partum women. Age was significantly associated, with younger women less likely to use family planning than adults, though the association was low ( $V = .159$ ). Religion also showed a significant but low association, as Islamic women tended to avoid family planning compared to Christians ( $V = .141$ ). Ethnicity had a strong significant association, with Yoruba women less likely to adopt family planning, likely due to cultural traditions ( $V = .253$ ).

Education and marital status were not significantly associated with family planning ( $V = .073$  and  $V = .143$ , respectively). Occupation, number of children, and income were significantly associated, with moderately strong associations for occupation ( $V = .224$ ) and number of children ( $V = .227$ ), and a strong association for income ( $V = .266$ ), indicating higher-income women were more likely to consider family planning. Overall, six of the eight socio-demographic factors age, religion, ethnicity, occupation, number of children, and income were significantly associated with family planning, while education and marital status were not. These results indicate socio-demographic characteristics influence post-partum women's family planning choices, leading to rejection of the null hypothesis.

**Table 5: Chi-square ( $X^2$ ) showing association between socio-demographic characteristics and family planning option among selected post-partum women in Ilorin hospital.**

Socio-Demographic characteristics and Family Planning Option							
Age	No F/P at all	Use FP	df	Chi-Sq	Phi remer'V	&C S	Remarks
Young Women	97	19					
	(89.8%)	(26.2%)	1	5.483	0.159	0.019	Sig
Adult Women	71	30					
	78.2	22.8					
Religion							
Islam	113	25					
	106.8	31.2	1	4.322	0.141	0.038	Sig
Christianity	55	24					
	61.2	17.8					
Ethnic							
Yoruba	147	34					
	140.1	40.9					
Igbo	14	8	3	13.908	0.253	0.001	Sig
	17	5					
Hausa	4	1					

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	3.9	1.1					
Others	3	6					
	7	2					
<b>Education</b>							
No formal Education	9	2					
	8.5	2.5					
Primary	11	3					
	10.8	3.2	3	1.163	0.073		0.762 N
Secondary	34	7					
	31.7	9.3					
Tertiary	114	37					
	116.9	34.1					
<b>Occupation</b>							
Civil Servant	22	14					
	27.9	8.1					
Trading	67	12					
	61.2	17.8					
Faming	18	2	4	0.028	0.224		0.028 Sig
	15.5	4.5					
Teaching	23	10					
	25.5	7.5					
Others	38	11					
	37.9	11.1					
<b>Marital status</b>							
Single	10	6					
	12.4	3.6					
Married	149	40	3	4.439	0.143		0.219 N
	146.3	42.7					
Divorce	5	3					
	6.2	1.8					
Widow	4	0					
	168	0.9					
<b>No of Child</b>							

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0	35	5					
	31	9					
1	35						
	31.1	9					
2	54	19					
	56.5	16.5					
3	22	9					
	24	7					
4	12	4	8	16.647	0.277	0.034	Sig
	12.4	3.6					
5	3	6					
	7	2					
6	5	1					
	4.6	1.4					
7	1	0					
	8	0.2					
9	1	0					
	0.8	0.2					
<b>Monthly Sal</b>							
less than 30K	44	8					
	40.3	11.7					
31-40,000K	57	9					
	51.1	14.9					
41-50,000K	23	18					
	31.7	9.3					
>50,000.00K	44	14	3	15.303	0.266	0.002	Sig
	44.9	13.1					

## CONCLUSION

The findings indicate that contraceptive use among postpartum women remains generally low, with a clear preference for less effective and traditional methods over modern, evidence-based options. This pattern reflects underlying concerns such as fear of side effects, cultural beliefs, and limited acceptance of certain contraceptive methods. Furthermore, the study demonstrates that socio-demographic factors play a critical role in shaping family planning decisions, as variables such as age, religion, ethnicity, occupation, number

of children, and income significantly influence adoption patterns, while education and marital status appear less impactful.

### Recommendations

Based on the findings of this study, immediate action below was recommended:

Healthcare policymakers should prioritize the strengthening of family planning counseling services during prenatal care, as evidenced by successful interventions documented in the literature. This recommendation is supported by the Madira et al., (2025) study, which demonstrated that counseling during antenatal care visits significantly increased the likelihood of post-partum family planning uptake.

Community-based interventions should be developed to address the cultural and religious factors that influence family planning decisions. These programs should engage religious leaders, traditional authorities, and community influencers to promote positive attitudes toward family planning while respecting cultural values and beliefs. The significant association between ethnicity and family planning choices suggests that culturally tailored approaches are necessary for effective program implementation.

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