

Postpartum Contraception at a Tertiary Health Facility in Rivers State: Prevalence, Indication and Pattern of Use

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Abstract: **Background:** Postpartum period is one of the critical periods for initiating contraception to reduce the unmet need for contraception. The study was aimed at reviewing records of postpartum contraception (PPC) users at the Rivers State University Teaching Hospital (RSUTH) to determine the prevalence, pattern of use, and the indications for postpartum contraception. **Methods:** A cross-sectional study of all cases of postpartum contraception at the RSUTH from 1st January 2018 to 31st December 2022. Descriptive and inferential statistics were derived using IBM, Statistical Product and Service Solutions (SPSS), version 25.0 (Armonk, NY). **Results:** The prevalence of postpartum contraception at the RSUTH was 18.5% of all contraceptive users or 63.4/1000 deliveries. Overall, a decreasing pattern of postpartum contraception was observed over the period under review. The commonest method of postpartum contraceptives used by participants was Implanon, accounting for 26.6% of total acceptors of postpartum contraception. This was followed by bilateral tubal ligation (25.1%), Jadelle (22.0%), and copper IUD (21.2%). The most common indication for the uptake of PPC was for spacing of childbirth (71.9%) respectively. **Conclusion:** The prevalence of postpartum contraception in RSUTH is low and demonstrates a decreasing trend. Women used postpartum contraception mainly for spacing and limiting of childbirth.

Keywords: Postpartum Contraception, Family Planning, Unmet Need, Reproductive Health.

INTRODUCTION

Postpartum contraception is key in reducing the high rate of unmet need for contraception as well as unintended and/ or unwanted pregnancies and their attendant complications. The postpartum period is a critical time to initiate contraception in that, women who are accessing health care are certain they are not pregnant; and are motivated to choose any contraceptive methods as they are under the care of clinicians and other health workers who have the expertise for such services [1-4].

According to a recent estimate, approximately 218 million women of reproductive age in low- and middle-income countries (LMICs) have an unmet need for modern postpartum contraception [5]. About 65% of postpartum women have an unmet need for contraception [4-6]. From the 2018 Nigeria Demographic and Health Surve, the rate of unmet need

for family planning has increased from 16% in 2013 to 19% in 2018 [7]. In Nigeria, the unmet need for modern contraceptive methods is 25.3% [3]. A prospective study carried out by Adeyemi *et al.*, [8], in South Western Nigeria among 256 postpartum women, revealed a higher unmet need for family planning of 59.4%. The postpartum period is an ideal time to address the high unmet need for family planning and to reduce to the barest minimum the risks of short interpregnancy intervals [4]. As such, the postpartum period has been identified by the World Health Organisation (WHO) as one of the critical periods to initiate contraception. The use of postpartum contraception in countries with high birth rates is known to reduce perinatal death and maternal death by 10% and 32% respectively [9, 10]. With the reported high rate of unmet need for postpartum contraception in sub-Saharan Africa and Nigeria in particular [3-11], it is pertinent to study postpartum contraception in Rivers State, Nigeria. This study was

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aimed at reviewing records of postpartum contraceptive users at the Rivers State University Teaching Hospital (RSUTH) to determine the prevalence, indications, and pattern of use.

MATERIALS AND METHODS

The Rivers State University Teaching Hospital (RSUTH) is a tertiary-level health facility and the teaching hospital of Rivers State University and Pamo Medical University. It is a referral centre for both private and other government hospitals within and outside Rivers State.

A descriptive cross-sectional study of all cases of postpartum contraception at the RSUTH from 1st January 2018 to 31st December 2022. A study proforma was used to record the variables of interest from the clients' hospital folders or files. The variables included the patient's age, parity, level of education, religion, indication for use of postpartum contraception, type of method and reasons for discontinuation. Categorical variables were summarized using frequencies and percentages, while symmetrical continuous variables were summarized using mean and standard deviation, and confidence intervals around the estimate. Data were

analysed using International Business Machine (IBM), Statistical Product and Service Solutions (SPSS), version 25.0 (Armonk, NY). The results were presented in charts and tables as appropriate for the data. The postpartum period was defined as the 6-week period or 42 days after birth (extended by the World Health Organization to 12 months after birth) [12]. Postpartum contraception was defined as contraceptive methods used within the postpartum period.

RESULTS

During the period under review, there were 3278 contraceptive users, and 9,607 deliveries and 609 postpartum women who used postpartum contraceptives, giving a prevalence rate of 18.5% of contraceptive users and 6.3% or 63.4 per 1000 deliveries.

Table 1 shows the sociodemographic and obstetric characteristics of the users of postpartum contraception. The mean (SD) age of the clients was 34.5 \pm 5.2, (95% CI: 34.5,34.9). The majority of the participants were Christians 600(98.5%), multipara 469(77.0%), had tertiary-level education 360(59.1%), and resided in the urban area 519 (85.2%).

Table 1: Sociodemographic and obstetric characteristics of the study participants

Variables	Number (N=609)	Percentage
Age group (years)		
16-20	2	0.3
20-24	22	3.6
25-29	61	10.0
30-34	221	36.3
35-39	206	33.8
40-44	81	13.3
45-49	16	2.6
Mean age	SD*	95%CI ⁺
34.5	5.2	34.6,34.9
Educational status		
Non-formal	2	0.3
Primary	41	6.8
Secondary	206	33.8
Tertiary	360	59.1
Parity		
0 (Nullipara)	2	0.3
1 (Primipara)	43	7.1
2-4(Multipara)	469	77.0
\geq 5(Grand-multipara)	95	15.6
Area of Residence		
Rural	90	14.8
Urban	519	85.2
Religion		
Christianity	600	98.5
Islam	9	1.5

*Standard deviation +95% Confidence Interval

Over the review period, the highest uptake was noticed in 2019, in which 201 (33.0%) of participants used postpartum contraceptives and decreased to

64(10.5%) in 2021(Table 2). With regard to number of contraceptive acceptors, the percentage of postpartum contraceptive users increased from 17% in 2018 to

31.3% in 2019 and decreased to 24.8% in 2020 with further decrease to 10.1% and 14.2% in 2021 and 2022 respectively (Table 2).

Table 2: Annual uptake of postpartum contraception at the Rivers State University Teaching Hospital (RSUTH)

Year	Total number of contraceptive users	Number of Postpartum contraceptive users	Percentage	Total number of deliveries	Percentage of total deliveries	Rate per 1000 deliveries
2018	932	158	17.0	2294	6.9	68.9
2019	643	201	31.3	1960	10.3	102.6
2020	323	80	24.8	1910	4.2	41.9
2021	634	64	10.1	1781	3.6	35.9
2022	746	106	14.2	1662	6.4	63.8
Total	3278	609	18.5	9607	6.3	63.4

The most common method of postpartum contraception used by participants was Implanon, accounting for 26.6% of total acceptors of postpartum contraception. This was followed by bilateral tubal ligation (25.1%), Jadelle (22.0%) and copper IUD (21.2%), and Depot medroxyprogesterone acetate

(3.6%) (Table 3). Oral contraceptive pills and levonorgestrel intrauterine system (Mirena) were the least accepted methods, accounting for 0.2% and 0.2% respectively (Table 3). The majority of the participants 456 (74.9%) opted for temporary methods of postpartum contraception.

Table 3: Methods of Postpartum Contraception at the RSUTH

Methods/Types of postpartum contraception	Number (N=609)	Percentage
Implanon	162	26.6
Bilateral tubal ligation (BTL)	153	25.1
Jadelle	134	22.0
Copper Intrauterine Device (IUD)	129	21.2
Depot medroxyprogesterone acetate (DMPA)*	22	3.6
Condom	4	0.7
Norethisterone enanthate	3	0.5
Levonorgestrel intrauterine system Mirena	1	0.2
Oral contraceptive pills (OCP)	1	0.2

*Intramuscular DMPA 12(2.0%) and Subcutaneous DMPA (Syana press) 10(1.6%)

Most of the participants 438 (71.9%) of the participants used postpartum contraception for birth spacing (Figure 1).

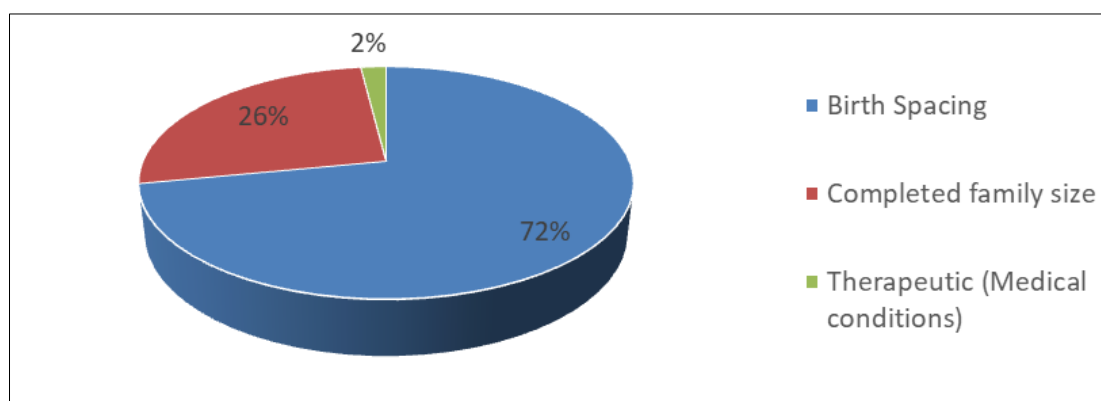


Figure 1: Indications for uptake of postpartum contraception

DISCUSSION

The prevalence of postpartum contraception at the Rivers State University Teaching Hospital was 18.5% of all contraceptive acceptors. The prevalence of postpartum contraception from this study was lower than the finding of 80.3% in Ethiopia [1], 75% in Malawi [13], 32% in Nepal but higher than 10.3% and 12.3% reported

by Mengesha *et al.*, [14], and Jima *et al.*, [15], in Northwest and Southern Ethiopia respectively. Variations in the reported rates across studies could be due to methodological differences. However, the low rate of postpartum contraception observed buttresses the high rate of unmet need for postpartum contraception in our setting.

Although postpartum women have different contacts with the health facilities during the postpartum period ranging from delivery to postnatal clinic and to the different immunisation contacts, if contraception is not initiated at those periods, it stands to reason that it will be difficult to commence it thereafter. As such, initiating postpartum contraception during the postpartum period has the potential of reducing the high rate of unmet need for contraception in low- middle - income countries (LMIC) and in particular, sub-Saharan African.

As regards the trend of postpartum contraception over the period under review, the percentage of PPC uptake among contraceptive users increased from 17.0% in 2018 to 31.3 % in 2019 and then decreased to 14.2 in 2022. Although the rate of uptake of postpartum contraception is low, the decrease in the uptake of postpartum contraceptive in 2020 and 2021 could be attributed to effects of the different lockdowns during the COVID-19 Pandemic. During the COVID -19 period limitation of movements and different lockdowns reduced family planning clinic attendance. Overall, a decreasing pattern of postpartum contraception was noticed over the period of review. A World Health Organisation (WHO) survey revealed disruption of family planning services in 68% of surveyed countries [16-20] . Other studies have also reported disruption of health services including contraception during the COVID-19 pandemic [19-21]. Never the less there is need to increase uptake of postpartum contraception among postpartum women in order to improve maternal and child health as well as improved family planning services.

The present study revealed that the commonest method of postpartum contraception used by postpartum women at the RSUTH was Implanon (a long -acting contraceptive implant), accounting for 26.6%. Another long-acting contraceptive implant- Jadelle, was the third most common method used by postpartum women indicating their preference for the contraceptive implants. This finding is contrary to the findings of Joshi *et al.*, [22], in Kailali District in Nepal where condoms and Depot medroxyprogesterone acetate (DMPA) or Depo-Provera were found to be the most common contraceptive methods used by postpartum women. Overall, the choice of long-acting contraceptive methods by most postpartum women compared to short acting methods may be due to compliance and the long duration of action.

Although majority of the participants 456 (74.9%) opted for temporary methods of postpartum contraception, 153(25.1%) chose the permanent method -bilateral tubal ligation (BTL). As such, BTL was the second most common method accepted by the study participants. The permanent method was chosen by participants that had completed their family size and had no further reproductive intentions. A previous study in

Port Harcourt, Nigeria has also revealed uptake of permanent method of contraception for limiting pregnancies [23].

The present study also showed that the most common indication for the use of postpartum contraception was for spacing of childbirth. The choice of temporary methods by over two thirds of the clients could account for this finding since it stands to reason that permanent methods are usually accepted by women who had completed their family size.

CONCLUSION

The prevalence of postpartum contraception at the RSUTH is low with a decreasing pattern of use. This buttresses a high unmet need for postpartum contraception in our setting. Implanon was the commonest method used by clients and for birth spacing.

Although a hospital-based study, the findings of this study would be helpful in counselling as well as planning programmes to enhance uptake of postpartum contraception. Efforts should be made at all levels of health facilities to measure, sustain and increase the uptake of postpartum contraceptives in order to reduce the unmet need for postpartum contraception in our setting and improve maternal health in line with sustainable development goals.

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