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Barriers to Uptake of Postpartum Long Acting Reversible Contraception; A Cross Sectional Study

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Author`s Contribution

[1,2,6]Substantial contributions to the conception or design of the work; or the acquisition, Drafting the work or revising it critically for important intellectual content [3]analysis, or interpretation of data for the work, [5]Literature review, [4]Final approval of the study to be published

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ABSTRACT

Objective: To investigate factors limiting postpartum long-acting reversible contraception from being used in our system.

Methodology: This cross sectional study was carried out in the department of Obstetrics and Gynecology, Nishtar Medical University, Multan, from September 2022 to April 2023, consisted of all women who gave birth at this hospital during the study period. Data were gathered using a structured questionnaire that had been pretested. The survey asks questions about sociodemographics, reproductive health, healthcare, knowledge and attitudes about LARC, and family planning use. At discharge, a skilled nurse conducted a face-to-face interview with the patient in a quiet private room to gather the data.

Results: In our study most (56.04%) of the women were between age of 26-35 years and (69.97%) belonged to urban area. Main bulk (47.68%) of the women had parity of 3-4 and majority (44.58%) of the women in sample had 0-2 alive children and (21.05%) women presented with history of previous abortion. Most (74.61%) of the women had spontaneous vaginal delivery. The rate of use of LARCs was 69 (21.36%) in our study sample. The comparison of rate of use of LARC's was found to be significantly (P-value < 0.05) associated with increasing age, increasing women education, occupation and job status. Family income, number of alive children and duration for plan to have next pregnancy were also significant (P-value < 0.05) contributors for uptake of LARCs.

Conclusion: The rate of used of postpartum LARC was low (21.36%) in the studied population. Postpartum women from of higher age, having higher education, with formal employment, having higher level of family income, and with higher duration for plan to have next pregnancy were more likely to use LARC.

Keywords: Postpartum Family Planning, Postpartum Long Acting Reversible Contraception, Uptake of LARCs,

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Introduction

The prevention of unplanned pregnancy and closely spaced pregnancies within the first year following birth is known as postpartum family planning (PPFP). Women who have just given birth have the highest unmet demand for family planning, which raises their risk for unplanned and untimely pregnancies. To attain the desired family size, PPFP aids couples in spacing out pregnancies.[1] Short-term techniques like condoms, injectables, oral contraceptive pills (OCP), and long-acting reversible contraception (LARC) which includes subdermal implants and intrauterine devices (IUDs) are all choices for postpartum contraception.[2] LARC is the best method of contraception for preventing early unwanted pregnancies throughout a prolonged postpartum period. With a 1% failure rate, LARC has been shown to be up to 20 times more effective than oral contraceptives, transdermal

patches, and vaginal rings. It is more reliable than any other method of contraception, affordable, long-lasting, and practical.[3]

All medical techniques and products that prevent sexual reproduction are considered modern contraceptives. In addition to other contemporary contraceptive methods, the World Health Organization (WHO) classifies implants and intrauterine contraceptive devices (IUCDs) as long-acting reversible contraceptives (LARCs). When compared to other forms of contraception, LARCs enable an instantaneous return to a woman's ability to have children after removal and can be used by women of all reproductive ages.[4] LARCs are more cost-efficient after just one year of use in addition to being more effective than short-term contraceptive techniques. Reports from Sweden and the United States have shown that LARCs provide considerable cost advantages over short-term techniques.[5]

Pakistan is the fifth most populous nation in the world, and its population is expanding at a rate of 2.4% a year. Contraceptive prevalence rate (CPR) has remained at around 30-35% despite strong political will, including a national pledge that was endorsed by the president to increase it to 50% by 2025.[6, 7] Rapid population growth and failure to manage the pace of reproduction have detrimental effects on development indicators including education, poverty, and life expectancy, particularly on maternal and child health.[8]

LARCs are long-acting reversible contraceptives that are implanted as soon as possible after childbirth, such as an intrauterine device (IUD) or contraceptive implant. By changing the cervical mucous and making it unfavorable for sperm, IUDs hinder fertilization. Women have a practical, efficient, and long-term contraceptive alternative thanks to this method. In many contexts, access to LARC's methodologies is still restricted. In practice, contraception is typically used less. Gynecologists strongly advise the urgent long-acting reversible contraceptive placement to prevent the effects of unexpected pregnancies.[9,10]

The percentage of unwanted pregnancies is influenced by a number of factors, including lack of access to family planning services, lower literacy rates, and others. In Pakistan, one out of every four married women of childbearing age lacks access to family planning services.[11] As a result, Pakistan has very low prevalence rates for contraception. The main objective of the current study is to examine the present situation of LARC approaches and the contributing factors to the postpartum utilization of LARCs in our system.

Methodology

In this cross-sectional study all the patients visiting and admitted in the department of Obstetrics and Gynecology, Nishtar Medical University, Multan for delivery at term were included. The patients were selected in a period of eight months from September 2022 to April 2023 were enrolled. The process of acquiring data for this study was started after receiving approval from the hospital ethical review committee. Patients who met our selection criteria were enrolled utilizing a non-probability consecutive sampling procedure. Each participant received an explanation of the study's procedures before providing their written consent. Confidentiality was upheld for both their medical and non-medical information. The study involved 323 people in total. The sample size was calculated by WHO sample size calculator with the help of 95% confidence interval, 30% prevalence of use of contraceptives, and 5% margin of error.[6]

An institution-based cross-sectional study was carried out. The study population was made up of all of the women who gave birth in this medical facility during the study period. A pretested structured questionnaire was used to collect data. The questionnaire asks questions regarding family planning usage, sociodemographic characteristics, and reproductive health issues. It also asks about healthcare issues and LARC knowledge and attitudes. At discharge, a skilled nurse conducted a face-to-face interview with the patient in a quiet private room to gather the data. The researcher oversaw the entire data gathering procedure. All of this information was recorded on a predesigned performa along with additional demographic data such as name, age, weight, BMI, gestational age, and parity.

SPSS version 25 was used to enter and analyze all the recorded data. Quantitative data was presented with mean and standard deviation, while qualitative data was expressed as frequency and percentages. Both quantitative and qualitative data were analyzed by using the independent sample t-test and the chi-square test, respectively. P-values ≤ 0.05 were considered significant.

Results

In this cross sectional study most (56.04%) of the women were between age of 26-35 years and (69.97%) belonged to urban area. Main bulk (36.22%) of the women had

education of matric and (72.76%) were housewives. Majority of the husbands were well educated and most of them were (35.29%) undergraduate or (30.34%) graduate and most of them were working as laborers. Most of the women had family income of 50000-100000 as given in the table I.

Table I: Distribution of demographic characteristics of the study sample.

Characteristics	N	%
Age (in years)		
15-25	125	38.70%
26-35	181	56.04%
> 35	17	5.26%
Area of living		
Rural	97	30.03%
Urban	226	69.97%
Women Education		
Illiterate	62	19.20%
Matric	117	36.22%
Undergraduate	96	29.72%
Graduate	48	14.86%
Women Occupation		
House wife	235	72.76%
Govt. Job	39	12.07%
Private Job	49	15.17%
Husband Education		
Illiterate	46	14.24%
Matric	65	20.12%
Undergraduate	114	35.29%
Graduate	98	30.34%
Husband Occupation		
unemployed	37	11.46%
Labour	148	45.82%
Govt. Job	77	23.84%
Private Job	61	18.89%
Family Income		
< 50000	91	28.17%
50000-100000	164	50.77%
> 100000	68	21.05%

Main bulk (47.68%) of the women in the study had parity of 3-4 and majority (44.58%) of the women in sample had 0-2 alive children and (21.05%) women presented with history of previous abortion. Duration of inter birth interval was between 1-3 years in majority (69.35%) of the women. Most (74.61%) of the women had spontaneous vaginal delivery and (72.76%) women had wanted pregnancy intention at the time of delivery. Mostly women (40.87%) had plan to have next pregnancy in 2-3 years as elaborated in table II.

The results of the study showed that the rate of use of LARCs was 69 (21.36%) in our study sample. The comparison of rate of use of LARC's was found to be associated with increasing age and the rate of use of LARC was found to increase significantly (P-value < 0.05) with increasing age. Area of residence had no significant (P-value > 0.05) on rate of using LARC's. Increasing women education showed a significant (P-value < 0.05) relationship with use of LARCs and it was observed that the rate of used of LARC's increases with increasing education showing highest rate of use of LARCs in females having undergraduate and graduate level education. Women occupation also showed a significant (P-value < 0.05) association with used of LARCs. The rate of use of LARCs was significantly higher in govt. job (34.78% vs. 6.3%), or private job (26.09% vs. 11.81%) in comparison to housewives. Husband education and husband occupation did not show any significant (P-value > 0.05) association with use of LARCs as shown in table III.

Table II: Distribution of maternal characteristics.

Characteristics	N	%
Parity		
0-2	88	27.24%
3-4	154	47.68%
> 4	81	25.08%
Number of alive children		
0-2	144	44.58%
3-4	101	31.27%
> 4	78	24.15%
Previous Abortion		
Yes	68	21.05%
No	255	78.95%
Duration of inter birth interval		
< 1	46	14.24%
1-3	224	69.35%
> 3	53	16.41%
Mode of delivery		
SVD	241	74.61%
Instrumental	58	17.96%
Cesarean delivery	24	7.43%
Pregnancy Intention		
Wanted	235	72.76%
Unwanted	88	27.24%
Plan to have next pregnancy after		
1	35	10.84%
2-3	132	40.87%
> 3	51	15.79%
When God Allows	105	32.51%

Family income and number of alive children showed a significant (P-value < 0.05) and positive relationship with rate of use of LARCs. Similarly, duration for plan to have next pregnancy was also a significant (P-value < 0.05) contributor for use of LARCs. It was observed that plan to have higher gape between next pregnancy was a major factor for use of LARCs as elaborated in table III.

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Table III: Association of demographic characteristics with use of LARCs.

Characteristics	Using LARC (n=69)		Not using LARC (n=254)		P-value
	N	%	N	%	
Age (in years)					
15-25	22	31.88%	103	40.55%	0.004
26-35	38	55.07%	143	56.30%	
> 35	9	13.04%	8	3.15%	
Area of Resident					
Rural	26	37.68%	71	27.95%	0.118
Urban	43	62.32%	183	72.05%	
Women Education					
Illiterate	8	11.59%	54	21.26%	0.000
Matric	14	20.29%	103	40.55%	
Undergraduate	22	31.88%	74	29.13%	
Graduate	25	36.23%	23	9.06%	
Women Occupation					
House wife	27	39.13%	208	81.89%	0.000
Govt. Job	24	34.78%	16	6.30%	
Private Job	18	26.09%	30	11.81%	
Husband Education					
Illiterate	5	7.25%	41	16.14%	0.0518
Matric	11	15.94%	54	21.26%	
Undergraduate	24	34.78%	90	35.43%	
Graduate	29	42.03%	69	27.17%	
Husband Occupation					
Unemployed	7	10.14%	30	11.81%	0.395
Labour	29	42.03%	119	46.85%	
Govt. Job	15	21.74%	62	24.41%	
Private Job	18	26.09%	43	16.93%	

Discussion

In order to lower the risk of unfavourable maternal, perinatal, and newborn outcomes, the WHO recommends waiting at least 24 months following a live birth before trying to conceive again. This emphasis the need of awareness to the mothers in child bearing age at the time of delivery about the importance of preventing rapid subsequent pregnancies.[12]

Long acting reversible contraceptive (LARC) methods, such as intrauterine devices (IUDs) and contraceptive implants, have very low failure rates (less than 1%), which are similar with those associated with sterilization. They are user-independent, safe, and effective. As a result, LARC has been deemed a top priority in many nations' national strategic plans for family planning.[13]

The motivations behind postpartum women's decisions to use LARCs for immediate postpartum family planning were also addressed in this study. Immediate postpartum contraceptive uptake was defined as starting between 10 to 48 hours of birth. The finding of poor usage of LARC and other immediate postpartum contraceptives suggests that there is still a substantial unmet demand for family planning, proving that postpartum women have the greatest unmet need. These results are quite similar to those of other research, including one by Belayihun B.[14]

In this study, we discovered that (21.36%) of postpartum women used LARC procedures, which is better than some studies which showed a rate of < 10% but it is less than some studies which have higher rate like (34.3%) has been reported in Ethiopia[15], (38.3%) in Kenya.[16] The characteristics of the examined population may be the cause of the discrepancy in findings between our study and other studies. Participants from metropolitan areas, where the majority of women have access to information about the significance of FP, including LARC, made up the majority of those in trials with greater rates of LARC uptake. However, this may also be because family planning services are widely covered by the majority of the health facilities in the research.[1]

The current study helps us understand how common postpartum family planning is among mothers of young children and identifies the factors that influence the use of contraceptives in our demographic. The comparison of rate of use of LARC's was found to be associated with increasing age, increasing women education, women occupation, family income, number of alive children, and duration for plan to have next pregnancy were the main contributing factors associated with uptake of LARC's.

These results are in accordance with other studies like study by Kang C found that the utilization of postpartum contraception was generally low, especially LARC. LARC's advantages have not been fully appreciated, and breastfeeding is still mistakenly viewed as a highly effective form of contraception. In order to boost the adoption of postpartum contraception, it is therefore necessary to update and improve health education, contraceptive knowledge, and legislation based on research data.[17,18]

According to earlier research, women who received postpartum contraceptive counselling were more likely to use LARC.[19] This emphasises how crucial it is to provide integrated reproductive health services, such as family planning counselling, throughout prenatal, antenatal, and postnatal visits. Similar to this, LARC use was more prevalent among women who said they had discussed contraception with their partners. Such results have previously been published.[20]

Conclusion

The rate of used of postpartum LARC was low (21.36%) in the studied population. Postpartum women from of higher age, having higher education, with formal employment, having higher level of family income, and with higher duration for plan to have next pregnancy were more likely to use LARC. Our research emphasises the need for family planning counselling, specifically the necessity for clients to be equipped with the understanding to make wise decisions, to be aware of common adverse effects of LARC, and to know how to manage side effects when necessary. It will be easier to use postpartum family planning if there are less myths and misconceptions in the community about the LARC approach thanks to quality counselling.

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