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Original Research Article

A knowledge, attitude and practice study on awareness and acceptance of contraceptives in postpartum women in a tertiary care hospital

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ABSTRACT

Background: Postpartum family planning (PPFP) is crucial to prevent unintended pregnancies and promote maternal and child health. However, postpartum contraceptive awareness and acceptance remain low in many developing countries, including India, where high fertility rates contribute to rapid population growth and strain health care resources. This study aims to assess the knowledge, attitudes, and practices (KAP) regarding contraceptives among postpartum women in a tertiary care hospital in Pune, Maharashtra.
Methods: This cross-sectional study was conducted from May 2024 to August 2024 in the obstetrics and gynaecology department of a tertiary care hospital. A total of 211 postpartum women were recruited based on inclusion criteria, and a self-structured questionnaire was administered to gather data on contraceptive awareness, attitudes, and acceptance. The data was then analyzed further.
Results: Of the 211 participants, 87.2% were aware of contraceptive methods, with the highest awareness of barrier contraceptives, followed by oral contraceptive pills and intrauterine devices (IUDs). Despite this high awareness, only 39.8% of the participants chose to adopt contraceptives during the postpartum period. The most accepted method was IUDs (81%), while the primary reasons for non-acceptance included the desire for more children (44.9%) and fear of infertility (21.3%).
Conclusions: Although awareness of contraceptives among postpartum women in this study was high, the acceptance rate was significantly lower. Factors such as cultural beliefs, fear of infertility, and spousal refusal contribute to non-acceptance. Addressing these barriers through targeted education and counselling during the postpartum period may increase contraceptive uptake and ultimately improve maternal and child health outcomes.

Keywords: Contraceptives awareness, Postpartum women, Family planning, Contraceptives acceptance

INTRODUCTION

The world health organization has described family planning as enabling communities to determine number and spacing of children through contraceptive use.[1]

India is experiencing a demographic phase characterized by high fertility and moderate mortality rates, resulting in a rapid population increase of 28 million per year, or 2.1%. Unplanned pregnancies burden healthcare resources and negatively affect women's health, making family planning crucial for child welfare and survival.[2]

To achieve population stabilization in India, it is essential to address implementation gaps in the country's family planning initiatives. The focus should remain on providing high-quality family planning services to those in need, including adolescents, individuals of reproductive age, and women in the postpartum period.[3]

Maternal mortality continues to be a significant public health issue. India accounts for one-fifth of global maternal deaths, with an estimated rate of 4 per 1000 live births, and approximately 15% of these deaths are attributed to unsafe abortions.[4]

Contraceptive use can potentially prevent at least 25% of all maternal deaths by helping women avoid unintended pregnancies and unsafe abortions, while also protecting against sexually transmitted diseases, including HIV.[5]

The period immediately following childbirth presents an excellent opportunity for contraception counselling, as women have prolonged contact with reproductive healthcare services during this time. PPFP primarily aims to prevent unintended and closely-spaced pregnancies within the first year after giving birth.[6]

This period immediately following childbirth presents an excellent opportunity to provide effective contraception to prevent unintended pregnancies which will help to reduce the risk of maternal and child morbidity and mortality.[6]

PPFP is often overlooked, and various biases and misconceptions have restricted its availability. Childbirth offers a chance to provide contraception when women are accessing services staffed by healthcare providers capable of offering a comprehensive range of methods, and when women may be highly motivated to begin using an effective contraceptive method.[7]

METHODS

Study design

A cross-sectional study was conducted in the department of obstetrics and gynaecology at Smt Kashibai Navale medical college and general hospital, a tertiary care hospital in Pune, Maharashtra on females in the postpartum period admitted during period of May 2024 to August 2024.

Inclusion and exclusion criteria

Women in the postnatal ward who have recently delivered and who have been counselled by about postpartum contraceptives, and have given consent for the study were included in this study. Women who did not give the consent were excluded.

Sample size

Total 211 participants were taken in the study. The sample size was calculated by the formula-

$n=[DEFF*Np(1-p)]/[(d^2/Z^2_{1-\alpha/2}*(N-1)+p*(1-p)]$

Where, n=sample size, DEFF=design effect, taken as 1, N=population size, taken as 331, p=prevalence, taken as 50%, d=margin of error/ precision, taken as 0.05, Z=1.96 (confidence limits).

Consent and ethics approval

Informed written consent was taken from the participants, in their local language. A self-structured, approved and validated questionnaire was given to the patients to fill and responses were recorded. The study was approved by the institutional ethics committee, SKNMC and GH with approval number-SKNMC/Ethics/App/2024/272.

Statistical analysis

Data was entered using Microsoft excel and analysis was done using SPSS and OpenEpi.

RESULTS

A total of 211 participants were included in this study, with a respondent rate of 100%. The sociodemographic characteristics of the study group is showcased in Table 1.

Table 1: Sociodemographic details.

Variables	N	Percentage (%)
Age (in years)		
18-25	56	26.5
25-30	110	52.1
30+	45	21.3
Religion		
Hindu	149	70.6
Muslim	47	22.3
Christian	15	7.1
Maternal education		
Illiterate	32	15.2
10th pass or under	77	36.5
12th pass	72	34.1
Degree holder	30	14.2
Occupation		
Housewife	116	55
Labour	65	30.8
Service	30	14.2
Income (INR)		
<10000	55	26.1
10000-25000	87	41.2
>25000	69	32.7
Parity		
1	130	61.6
2-3	71	33.6
4 or more	10	4.7
Age at marriage (in years)		
18	20	9.5
19-25	146	69.2
>25	45	21.3

Of the total participants, 110 (52.1%) were in the age group of 25-30 years, 56 (26.5%) were in the age group of 18-25 and 45 females (21.3%) were in the age group of

above 30 years. A total of 149 participants (70.6%) were Hindus, 47 Muslims, and 15 Christians. The educational status was as follows: 77 participants were 10th pass or below and 72 participants were 12th pass, while 32 participants were illiterate. About 116 of the participants were housewives and 87 (41.2%) of the total participants had an income of Rs. 10000-25000/ month. About 69.2% of the women married at the age 19-25 years, while 20 participants were married at the age of 18. Total 130 participants (61.6%) were of parity 1, while 71 of the participants were of the parity of 2-3.

Table 2: Details of last pregnancy planning.

Last pregnancy	N	Percentage (%)
Planned	42	19.9
Unplanned	169	80.1

Table 2 shows that 169 (80.1%) participants had an unplanned pregnancy whereas 42 (19.9%) had a planned pregnancy.

Table 3: Knowledge of contraceptives.

Variables	N	Percentage (%)
Having knowledge of contraception		
Yes	184	87.2
No	27	12.8
If yes, which type		
Barrier, IUD, OCP, DMPA	1	0.5
Natural, barrier, OCP	1	0.5
Barrier, IUD and OCP	17	9.2
IUD, OCP, sterilization	1	0.5
Natural, barrier	5	2.7
Barrier, IUD	10	5.4
Barrier, OCPS	52	28.2
Barrier, DMPA	2	1.1
IUD, OCP	1	0.5
Barrier	81	44
IUD	1	0.5
DMPA	12	6.5

Table 3 presents the participants' awareness and knowledge of contraceptives. Of the participants, 184 (87.2%) had some knowledge of contraceptive methods. The second part of this table shows which contraceptives were known to the 184 participants in which the most popular methods known are barrier contraceptives, followed by OCPs and IUDs.

Table 4 shows that, only 84 females (39.8%) had decided to use contraceptives in the current postpartum period, of which 68 (81%) females decided to use IUDs, 10 (11.95%) females decided to use barrier contraceptives and only 6 (7.1%) participants decided to undergo sterilization.

Table 4: Acceptance and preferred method of contraception.

Variables	N	Percentage (%)
Accepted contraceptives in current postpartum period		
Yes	84	39.8
No	127	60.2
Preferred methods of accepted contraception in current postpartum period		
IUD	68	81
Barrier	10	11.9
Sterilization	6	7.1
OCPS	0	0
DMPA	0	0

Table 5: Reasons for accepting a contraceptive in postpartum period.

Reasons for accepting	N	Percentage (%)
Child spacing, temporarily no children	71	84.5
Definitive desire for no more children	13	15.5
Satisfaction with prior contraceptives	0	0

The most common reason for acceptance was child spacing (84.5%), while 13 females (15.5%) opted for having no more children. This data is presented in Table 5.

Table 6: Reasons for not accepting contraceptive in current postpartum period.

Reasons for not accepting	N	Percentage (%)
Spouse refusal	26	20.5
Fear of infertility	27	21.3
Desire for more children	57	44.9
Medical reasons	0	0
Religious beliefs	1	0.8
Side effects	10	7.9
Unable to decide method	5	3.9
No reason	1	0.8

Of the 211 participants, 127 females (60.2%) did not accept contraceptives in the current postpartum period, and the most common reason was the desire for more children (44.9%), followed by fear of infertility (21.3%), spouse refusal (20.5%), side effects (7.9%), and inability to choose methods (3.9%) (Table 6).

DISCUSSION

This is KAP study to assess the awareness and acceptance of contraceptives in postpartum women, admitted in a tertiary care hospital in Maharashtra.

In the present study, 87.2% of the cases were aware about the contraceptive methods. This is comparable with the studies conducted by Kripa et al 2017 (88%) and Pal et al 2022 (79.8%).[13,16]

Of all cases who were aware of contraceptives, maximum awareness was for barrier contraceptives (91.9%), followed by OC pills (39.5%), IUDs (16.8%), DMPA injectables (8.1%), natural methods (3.2%). Least awareness was for permanent methods of contraception (0.5%). This can be due to the easy availability of condoms and OC pills. This is in contrast to the study done by Jyoti Jaiswal et al which showed awareness of around 80.8% for IUD, 79.8% for barrier methods, 61.37% for sterilization.[7] However, it is in similar to the study conducted by Bajracharya et al in which most widely known contraceptives were barrier (84%), followed by OC pills (82%), DMPA injectables (71.5%) and IUDs (56.8%).[8]

In the present data, we found out that of the total participants, 52.1% cases were in the age group of 25-30 years; which is in contrast to the study done by Pinjala et al in which maximum cases are from the age group 20-25 years (59.9%).[9]

Most of the cases are of the Hindu religion (70.6%), which is similar to the study conducted by Pinjala et al whose 88.6% cases are Hindu by religion.[9] Of the total cases, 15.2% females were illiterate which is comparable to the study conducted by Maharajan et al, in which 14% patients had no formal education.[10] The 55% of the total participants were housewives, and 41.2% of the respondents had a monthly family income between 10000-25000 Rs, and 61.6% of the cases were of parity 1. This is similar to the study done by Meena et al in which most respondents were housewives (87.5%), however differs in term of total family income which was 5000-10000 in 57% of the respondents in their study.[11] This also differs from the study done by Bee et al in which majority of patients were multigravida (48.9%).[12]

In our study although 87.2% females were aware of contraceptives, only 39.8% had decided to accept contraceptives in the current postpartum period. Similar results were found in studies done by Kripa et al (37.1%) and Singh et al (43.1%).[13,14] However, it differs from studies done by Jaiswal et al in which 90.9% females accepted contraceptives in the postpartum period.[7]

Our study shows that the most common reason for not accepting was desire for more children (53.1%), followed by the fear of infertility (21.3%), spouse refusal (20.5%), side effects (7.9%), unable to decide method (3.9%), religious belief (0.8%) and no reason (0.8%). This differs from the study done by Sahu et al, in the main reasons for nonacceptance were fear of side effects (30.4%) and lack of knowledge (24%).[15] The study done by Pal et al also shows that the most common reason couples avoided using contraception despite being aware was the desire for childbearing (18.7%) followed by fear of infertility (7.8%).[16]

The reasons for which patients accepted contraceptives in the current postpartum period were child spacing (84.5%) and definite desire for no more children (15.5%). This is similarly seen in the study done by Pal et al where main reasons for acceptance were temporary child spacing (41%) and the definitive desire for no more children (34%).[16] Total 68 women (81%) have accepted IUDs, with some opting for immediate insertion, while others will receive them at different intervals over the year. Following IUDs, the next most commonly accepted contraceptives were barrier methods (11.9%) and sterilization (7.1%). In the study done by Thapa et al choices were of 33% for IUDs and 20% for Barrier methods.[17]

The strengths of study were-addresses an important public health issue regarding contraception-100% respondent rate, respondents are of a diverse demography and a well-structured, validated questionnaire.

Limitations

It was a single centre study with limited sample size. The study focuses on immediate postpartum and does not follow long term assessment.

CONCLUSION

This study highlights the importance of providing postpartum women with comprehensive knowledge, tools, and the freedom to choose an ideal contraceptive method that best suits their needs. While awareness about contraceptives is relatively high, the gap between awareness and actual acceptance remains significant, underscoring the need for targeted interventions. Multiple factors, including cultural beliefs, fear of infertility, and spousal influence, play a role in contraceptive acceptance. High-quality, professional counselling is essential to address these concerns effectively. Promoting counselling programs specifically tailored to the postpartum period offers a valuable opportunity to engage with women when they are in frequent contact with healthcare services. This period serves as a critical window for influencing positive family planning decisions and reducing unintended pregnancies. Bridging the gap between contraceptive awareness and acceptance requires not only better education but also the implementation of effective counselling promotion programs. By empowering women with accurate information and support, healthcare providers can play a pivotal role in helping families make informed decisions, ultimately improving maternal and child health outcomes.

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