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Knowledge, Attitude and Utilization of Family Planning Methods among Postpartum Women in a Selected Tertiary Care Facility in India

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ABSTRACT

Background & aim: Utilization of family planning services among married women in India, especially postpartum family planning, is poor, with only around one fifth of currently married women using a spacing method. Women's awareness about PPFP methods in India is also limited. This study aimed to assess the knowledge, attitude and utilization of family planning methods among postpartum women in India.

Methods: A cross-sectional survey of 284 postpartum mothers was conducted in a well-baby clinic of a tertiary care facility using convenience sampling. Respondents were interviewed using self-developed, pretested and validated tools. Data was analyzed with STATA software version 31.1 using descriptive statistical methods.

Results: Almost two third of the mothers did not receive family planning counseling in the antenatal period (66.1%) and over half did not receive it in the immediate postpartum period (53.5%). The majority (66.6%) did not use any contraceptive method. The mean knowledge score was 7.82±3.90 out of a total score of 16 points, and the mean attitude score was 33.53±3.90 out of a total score of 50 points. Knowledge of postpartum mothers related to the family planning methods was significantly associated with their educational status, number of antenatal visits, and use of contraceptives, while the use of contraceptive methods was significantly associated with resumed sexual activity.

Conclusion: Lower scores on knowledge about PPFP compared to attitudes to PPFP emphasize the need for innovative approaches to make postpartum women aware about healthy reproductive practices including adoption of FP methods of their choice.

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Introduction

Family planning not only improves reproductive health and overall wellbeing of women and their children but also contributes to the economic growth of a country.(1) Globally, there is a fall in the fertility rate and this trend is appreciable in India also. The total fertility rate in India is currently at 2.3, which is very close to the desired rate of 2.1.(2) India was the first country to start its own family planning (FP) program at a national level not long after gaining independence with the aim to control its population growth. Since then, this program has continuously adapted to serve the changing needs of the population. This is evident from its current focus on improving reproductive and sexual health under the present family welfare program. One of the key objectives of the program is to revitalize postpartum family planning (PPFP) in order to capitalize on the increased number of institutional deliveries under the Janani Suraksha Yojna, another flagship government program.(3) According to the fourth National Family Health Survey (NFHS-IV), the use of modern contraceptives by married women is

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just above 50 percent and the total unmet need of FP in the married women is 13 percent, which suggests a need for improvement.(1,2) Despite a variety of contraceptive choices targeted for use during the postpartum period being made available in the public system, sterilization is still the most utilized method among married women. This The popularity of sterilization as a contraceptive choice also suggests that women may not be fully aware of other contraceptive methods, or they may have misconceptions about spacing methods of contraception.(4) The NHFS-IV survey showed that only around one in five women desires another child within two years of giving birth, but the utilization rate of spacing methods among currently married women, is only around 20 percent. The survey also reports that 99 percent of all married men and women under the age group of 15-45 years know at least one method of modern contraception; however utilization of FP services, especially PPFP, is poor.(2, 5) Women's awareness about PPFP methods, especially spacing methods, has been poorly studied in India. Further exploration on the awareness of PPFP methods and factors associated with contraceptive use is needed to guide future interventions. The site of this study is a tertiary care centre with well-established family planning counseling program integrated with the Obstetrics Department. We observed that our PPFP services were under-utilized as compared to the number of deliveries taking place. The present study was planned to assess the knowledge, attitude, and utilization of contraceptives among women in the postpartum period, to inform and bring improvement in practice.

Materials and Methods

A quantitative, cross-sectional survey of 284 postpartum mothers was conducted in a well-baby clinic of an urban tertiary care facility in Delhi, India during July 2019 to February 2020. Ethical clearance was obtained from the Institute Ethics Committee (IEC-182/05.04/2019, RP-41/2019). Postpartum women (up to 6 months after delivery) attending Pediatric Outpatient Department in Well Baby Clinic, who were willing to participate in the study and who understand Hindi or English, were included. Postpartum women following an abortion, having children older than 6 months, or with total abdominal hysterectomy, were excluded. Assuming the utilization rate of family methods among postpartum women around 60-70% (6) with 5% precision and 95% confidence interval, the sample size was calculated to be 370. The study was prematurely closed due to the COVID-19 outbreak and beginning of tele-consultation in place of Well Baby Clinic.

Postpartum mothers were interviewed using self-developed, pretested, and validated data collection tools consisting of socio-demographic profile (7 items), information related current pregnancy (10 items), FP utilization tool (5 items), knowledge questionnaire (15 items), and attitude scale (10 items). Tools were developed after extensive review of literature and validated for content by three experts in the field. Written informed consent was obtained from all respondents. Time taken to complete the questionnaire ranged from 15-20 minutes. Knowledge questionnaire had multiple choice questions and True and False items. A score of '1' was given for correct response and '0' for incorrect response. The knowledge and attitude items were primarily related to postpartum family planning methods. The attitude scale had 10 items measured on five point Likert scale ranging from strongly agree (5) to strongly disagree (1). Maximum possible knowledge and attitude scores were 16 and 50 respectively. Knowledge scores were categorized as excellent (>12), good (10-12), average (6-9) and poor (<6). Similarly, attitude scores were categorized as excellent (>40), good (31-40), average (21-30) and poor (< 20).

Data was coded and entered in MS Excel and imported to STATA software version 13.1, StataCorp, College Station, Texas 77845 USA. Data was computed in frequency, percentage, mean, median, standard deviation and inter-quartile range (IQR). Coefficient of correlation was used to study correlation between knowledge and attitude. Fisher's Exact test and was used to establish association of knowledge and use of contraceptive with selected demographic and clinical variables, (data frequencies were less than ten in some of the categories). The set level of significance was taken as <0.05.

Results

Majority of postpartum mothers belonged to Hindu religion (83.5%), educated either at secondary level (26.8%) or above (45.4%) with the mean age of 26.97±4.65 (years).

Table 1. Information related to current pregnancy and utilization of contraceptives (n= 284)

Items	Frequency (%)
Number of antenatal visits**	6 (4,.9)
Number of antenatal visits	
≤ 4	83 (29.2)
5-8	116 (40.9)
> 8	85 (29.9)
Received counseling for family planning in antenatal period	
Yes	96 (33.9)
No	188 (66.1)
Received counseling for family planning in immediate postpartum period	
Yes	132 (46.5)
No	152 (53.5)
Duration of postpartum period (months)	3.55□1.75
Birth interval between recent and previous birth (years)	3.21□2.16
Breast feeding status	
Exclusive Feeding	171 (60.2)
Feeding partially	94 (33.1)
Not at all feeding	19 (6.7)
Resumed menses after childbirth	
Yes	148 (52.1)
No	136 (47.9)
Mean period of resumption of menses (months)	2.36(1.35)
Resumed sexual activity	
Yes	124 (43.7)
No	160 (56.3)
Mean period of resumption of sexual activity (months)*	2.52(1.34)
Current use of contraceptive	
Yes	95 (33.4)
No	189 (66.6)
Reason for not using contraceptive method (n= 189)	
Did not know about contraceptives	17(9.0)
Wanted a child	16 (8.5)
Not willing to use a contraceptive	35 (18.5)
Misconceptions about contraceptives	12(6.3)
Never thought about using one	7 (2.1)
Abstinence as a contraceptive	71 (37.5)
Not responded	31 (16.4)
Method of contraception (n= 95)	
Condom	50 (52.7)
Cu T	27 (28.4)
Tubal Ligation	10 (10.5)
Oral contraceptive/ DMSA	2 (2.1)
Safe Period	6 (6.3)
Person responsible for decision making regarding contraceptive use	
Self	20 (7.0)
Husband	37 (13.0)
Both	192 (67.6)
Not responded	35 (12.4)

*mean±SD ,**median[IQR]

Majority of postpartum mothers belonged to Hindu religion (83.5%), educated either at secondary level (26.8%) or above (45.4%) with the mean age of 26.97±4.65 (years). Mean family size was 4.79±2.38 members and mean number of pregnancies was 2.16 ± 1.25.

Table 1 shows information related to current pregnancy and utilization of contraceptives. The majority (70.8%) of post-partum mothers had attended more than four antenatal visits with median antenatal visits of 6 [4, 9]. Most of the mothers (66.1%) neither received FP counseling in the antenatal period nor in the immediate postpartum period (53.5%). Nearly 60% of women had not resumed sexual activity, and 52.1% had resumed menses after childbirth. Around 60.2% of postpartum mothers were doing exclusive breastfeeding (EBF). Two thirds of the postpartum mothers (66.6%) were not using any contraceptive. Among the contraceptive users, slightly more than half of the women reported that their spouse used condoms as the contraceptive method. The majority of the respondents reported that they were not using contraceptive method because they practiced abstinence (37.6%). The decision to use contraception was made in consultation with spouse in majority of women (67.6%).

Table 2 shows the knowledge and attitude scores of participants. Most of the postpartum mothers (37.9 %) had average knowledge related to FP methods with the mean knowledge score of 7.82±3.90, whereas attitude of most of the postpartum mothers (75.1%) was good with the mean attitude score of 33.53±3.90.

Table 2. Knowledge and attitude scores of postpartum mothers (n=284)

Variable		F (%)	Mean± SD	r+	p value#
Knowledge (Min. to Max. score- 0 to 16)	Excellent (>12)	45 (15.8)	7.82±3.90		
	Good (10-12)	47 (16.6)			
	Average (6-9)	108 (37.9)			
	Poor (<6)	84 (29.7)			
Attitude (Min. to Max. score- 10 to 50)	Excellent (> 40)	16 (5.6)	33.53±3.90	0.12	0.17
	Good (31-40)	214 (75.1)			
	Average (21- 30)	54 (19.3)			
	Poor (≤ 20)	0			

r+= Pearson's correlation coefficient, #Fisher's exact test

Weak positive correlation (r=0.12) was observed between the knowledge and attitude of postpartum mothers towards FP methods. Item wise attitude of postpartum mothers is described in Table 3. Table 4 shows the association between demographic and clinical variables with use of contraceptive. The use of contraceptive methods was significantly associated with resumed sexual activity (p=<0.001). Knowledge scores had statistically significant associations with higher educational status of the women (p=0.001), the number of antenatal visits women had (p=<0.001) and use of contraceptives (p=0.003) [Supplementary table 2 (a)].

Table 2a. Attitude of postnatal mothers towards family planning (n=284)

Statements	Median score (Q1,Q3)
I wish to adopt contraceptive in the future	5 (3,5)
I will encourage my friend to adopt PPFP	5 (4,5)
Discussing the use of PPFP with my partner is good	5 (4,5)
Using postpartum contraceptive is shameful	2 (1,2)
PPFP is good for the health of mother and child	4.5 (4,5)
PPFP use is good for standard of living	4 (3.5)
Exclusive BF can be used to prevent pregnancy	3 (2,4)
Unmarried women can use contraceptive	3 (2,4)
Using contraceptive can cause infertility in future	2 (1,3)
My religion forbids me to use the contraceptive	2 (1,2)

(1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, 5=strongly agree)

There was also a statistically significant association between attitude scores and educational status of the women (p=0.002), the number of antenatal visits women had (p=0.03), whether women received FP counseling either in the antenatal (0.04) or postpartum period (p= 0.01), resumption of sexual activity at postpartum period (p=0.009), and use of contraceptives (p=0.001). [Supplementary Table 2 (b)].

Table 2b. Association between demographic and clinical variables with use of contraceptive (n=284)

Variables	Contraceptive Use		P value*
	Yes (n=95)	No (n=189)	
Religion			
Hindu	84 (89)	153 (81)	
Muslim	10 (10.9)	32 (17)	0.27
Others	1 (0.1)	4 (2)	
Education			
Illiterate	12 (12.6)	25 (13.2)	
Primary	11 (11.6)	31 (16.4)	
Secondary	23 (24.2)	53 (28)	
Above secondary	49 (51.6)	80 (42.4)	
Number of antenatal visits			
≤ 4	23 (24.2)	60 (31.7)	
5-8	40 (42.1)	76 (40.2)	0.31
> 8	32 (33.7)	53 (28.1)	
Received counseling for family planning in antenatal period			
Yes	36 (37.9)	60 (31.7)	0.35
No	59 (62.1)	129 (68.3)	
Received counseling for family planning in immediate postpartum period			
Yes	51 (53.7)	81 (42.9)	0.06
No	44 (46.3)	108 (57.1)	
Breast feeding status			
Exclusive Feeding	53 (55.8)	118 (62.4)	
Feeding partially	33 (34.7)	61 (32.3)	0.34
Not at all feeding	9 (9.5)	10 (5.3)	
Resumed menses after birth			
Yes	56 (59)	92 (48.7)	0.06
No	39 (41)	97 (51.3)	
Resumed sexual activity			
Yes	77(81)	47(24.9)	
No	18 (19)	142 (75.1))	<0.001

*Fisher exact test

Discussion

The postpartum period is one of the critical phases in terms of initiation of FP by a woman because women are within reach of the health care providers. They might also have an increased motivation to avoid another pregnancy at this time. Among women who are not breastfeeding, ovulation can occur as early as 25 days, highlighting the importance of adopting FP methods in the early, or immediate postpartum period. In this study most of the women had an education of secondary level or more, possibly due to the urban location of the healthcare facility.

The majority of the women in the study were not using any method of contraception (66.6%). Most responded that they were using abstinence as a contraceptive, when asked for the reason for not using one. This suggests that most of them are not fully aware of why abstinence cannot work as an effective contraceptive method. With the mean knowledge score falling below the average of the total score, there is an urgent need to propagate correct knowledge and dispel inaccurate information about FP. It is interesting to note that less than 10 percent of the women responded that the reason for not using contraceptive was because they didn't know about it. Thus it can be suggested that women

may be relying on other non-validated sources of knowledge or advice to protect themselves against further pregnancies. They may desire right information from credible sources when it comes to contraception, but such sources may be difficult for women to access because of social and other barriers. Discussion about sexuality is still a taboo in India, even among family members. Women require accessible places where they are made to feel comfortable to discuss sexual needs and obtain correct information.

Another surprising finding is how many did not receive FP counseling during the antenatal period, even though most of them had visited a healthcare facility more than 4 times, which is the minimum number of ANC visits recommended by the World Health Organization. A number of studies have reported that FP counseling during the antenatal period is associated with utilization of modern contraceptive methods,(7–9) however this was not so in our study. It may be because of smaller sample size. The low prevalence of FP counseling during the antenatal period reflects poorly on the quality of FP service at the point of service delivery. The National Family Welfare Program has ensured that there is provision of FP services at every public healthcare facility. However, the quality of these services may need strengthening so that more women are reached and counseled. The proportion of women counseled in the immediate postpartum period is considerably better (53.9%). This may have influenced the use of Copper T (Cu-T) as a contraceptive choice by nearly one third of the women in the study. The study also found that nearly two thirds of the women were practicing EBF which is commendable. Lactational amenorrhea method (LAM) is as effective as other modern methods of contraception when it is used as intended and offers additional protection to these women.(10) The practice of EBF also reflects well on the quality of breastfeeding counseling the mothers may have received during their hospital stay.

Majority of the women had not resumed sexual activity even after the stipulated postpartum period of six weeks when they are generally advised to abstain from sexual activity. Another study conducted among low socioeconomic women in India also found that a little less than half of the women had resumed sexual activity after childbirth, and that 65.3% of the women were not using any FP methods.(11) Sexual abstinence may have implications on healthy spousal sexual relations. Studies from other countries reported a higher percentage of women resuming sexual activity at three months postpartum. (12–14) Resumption of sexual activity later than eight weeks or more was associated with instrumental or operative delivery.(12) The study also noted a statistically significant association between resumption of sexual activity after birth and utilization of contraceptives. This finding highlights the role of contraception in maintaining healthy sexual activity after childbirth and may have further implications on other aspects of marital satisfaction which are outside the purview of this study. The decision for using contraception was taken by both spouses in majority of the respondents, which is supported by previous literature.(15,16) This suggests that married women in India still do not have the power to make independent decisions, even in urban settings.

The study found that most of the postpartum mothers (38%) had average knowledge related to FP methods. This is in conflict with other studies reported from India where knowledge or awareness of FP was found to be good or better.(17–19) However, these studies addressed FP as a whole, whereas the present study specifically looked into knowledge about PPFP. Therefore, we argue that although women may have overall knowledge about FP, their knowledge on PPFP may need reinforcement.

There is an emphasis on improvement of reproductive health under the present family welfare program. It is well known that spacing of children plays an important role in maintaining the health of the mother. Women need more awareness of PPFP methods and health care providers should include a focus on PPFP methods during instances of patient contact outside the immediate postpartum period. Women should be counseled about PPFP methods during other health care interactions such as during infant immunization visits and routine outpatient and home visits. Knowledge and attitude of postpartum mothers related to FP methods was significantly associated with their

educational status, which is similar to findings from other studies.(20,21) The attitude of most of the postpartum mothers (72.2%) was good which is supported by other similar findings from previous literature.(16, 17) Thus, it can be inferred that women are willing to adopt FP methods. Attitude scores were also statistically associated with number of ANC visits, FP counseling received during antenatal and postpartum visits, and resumption of sexual activity. Knowledge and attitude about FP methods was also significantly associated with use of contraceptives, which is supported in the literature.(20) The challenge remains for the health care providers to provide access to FP counseling and help the woman to adopt a method of her choice.

This study was a single-centered survey on a largely homogenous group sampled using convenience technique and the results should be interpreted in keeping with these limitations. Researchers have dealt with a culturally sensitive, but very important issue, which directly affects the health of the postpartum mothers and their children.

Conclusion

This study reports the knowledge, attitude and utilization of PPFP methods among urban, postpartum women presenting at a health care facility for infant immunization. The attitude to women using PPFP was not matched by an adequate knowledge of PPFP. Based on the findings, this study recommends innovative approaches to reach out to women both in the hospital and community settings to make them aware about healthy reproductive practices, which includes adoption of FP method of their choice.

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Conflicts of interest

Authors declared no conflicts of interest.

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