

ORIGINAL RESEARCH

Contraceptive Knowledge and Practices among Lactating Women –A Cross-sectional Study

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ABSTRACT

Background: Evidence recommends that the ideal gap between the birth of two children should be at least three years. The use of the modern contraceptive method(s) for at least one to two years after childbirth can have multidimensional benefits for the women/couple. **Aim:** This study aimed at assessing the knowledge and practices regarding contraception among lactating women. **Material and Methods:** A single centre, hospital-based cross-sectional study involving 287 lactating mothers was conducted for a total duration of 6 months. The data on demography, fertility, knowledge and current practices about contraception was collected. **Results:** The mean and the median age of the participants were 24.2 (± 3.1) and 23 years. A total of 183 (63.8%) women expressed the desire for more children. The modern methods of contraception known to most participants were: male condoms (97.2%), female sterilization (94%), and pills (92.7%). A total of 176 (61%) study participants reported using any method of contraception during their last sexual intercourse. The single most common method used by the couple was a male condom (21%) followed by oral pills (16.5%) and IUCD (14.8%). The total unmet need for contraception was 24.3%: spacing (16%) and limiting (8.3%). **Conclusion:** Despite knowing several contraceptive methods, about one-fourth of women had an unmet need for family planning.

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INTRODUCTION

Contrary to the popular belief, family planning is much more than limiting the number of children. The World Health Organization (WHO) defines family planning as “encompasses services leading up to conception”, it includes services related to sex education, prevention and management of sexually transmitted infection, pre-conception counselling, and infertility management(1). In other words, family planning means empowering men, women, and couples over their reproductive needs to influence reproductive behaviour that best suits their needs. During different phases of life, a woman has different reproductive needs. For a young woman, the reproductive needs may be limited to avoiding

unwanted pregnancy and preventing acquiring any sexually transmitted infection. For a married woman, reproductive needs maybe delaying birth or preventing birth(1).

Perhaps, the most crucial time in the reproductive life of women regarding family planning or the use of contraception is the extended postpartum period i.e., until 1 year after birth or until six months after an abortion(2–4). The use of contraception following the birth of the child can save the life of the woman (2–4). The evidence suggests that the use of contraception for about two years after the birth of a child has multiple benefits for the woman and her family. The empirical data from several large studies conducted the world over suggest that women who used

contraceptive methods, particularly long-acting reversible contraceptives between two successive pregnancies had lower morbidity and mortality rates in comparison to non-users of contraceptive methods(3–6). Further, the mean birth weight was higher among neonates born after three years after the last birth(7). Unmet need for family planning is defined as the percentage of currently married women who either want to space their next birth or stop childbearing entirely but are not using contraception(1). As per National Family Health Survey-5, about 8 percent of currently married women have an unmet need for family planning(8). As per the survey, 90 percent of the demand for family planning is being satisfied and 83 percent of the demand is being satisfied by modern methods(8). Lastly, the reproductive behaviour of the woman is influenced by her educational and employment status, culture, beliefs, and society(9). Thus, it is important to assess the contraceptive needs and practices among women/couples every few years so that the unmet need for contraception remains minimal. Hence, we conducted this study intending to assess the knowledge, attitude, and practices about contraception among lactating women.

MATERIAL AND METHODS

2.1 Study Design: This was a single centre, hospital (out-patient) based, cross-sectional, observational study. 2.2 Study Settings: The present study was conducted at the Department of Obstetrics & Gynaecology, LN Medical College, Bhopal. It is a tertiary care centre. The data collection for the present study was initiated after the research protocol was approved by the Institute's Ethical Committee on Human Research. 2.3 Study Duration: The total duration of the study was 6 months. 2.4 Outcome: (i) Knowledge about existing contraceptive methods, (ii) Current method (if any) of contraception used by participants. (iii) To determine the unmet need for contraception/family planning among participants. 2.5 Sample Size Calculation: Using the prescribed formula for proportion, the minimum required sample size for this study was calculated as 287(10). All participants who fulfilled the selection criteria were recruited into the present study until the desired sample size was completed. 2.6 Selection Criteria:

INCLUSION CRITERIA

1. Lactating mother, irrespective of age or parity
2. Duration since last childbirth < 2 years.
3. Women who had given consent to participate in the study.

EXCLUSION CRITERIA

1. Duration since last childbirth >2 years.

2. Women who had a caesarean hysterectomy.
3. Women's refusal to participate in the study.

SAMPLING METHODOLOGY

We employed the systematic random sampling method to recruit participants for the study(11). A woman with a child younger than two years of age visiting the OPD of the JK Hospital was approached for enrolment in the study. All prospective study participants were screened using the selection algorithm to recruit participants. 2.8 Informed Consent: The participants were informed about the study procedure; privacy of collected data; and explained that they have the right to withdraw from the study at any point in time. A bi-lingual (Hindi & English) consent form was drafted following the prescribed guidelines for research on human participants. 2.9 Data Collection: The data were collected in a paper-based proforma. 2.10: Source of Data: face-to-face, quantitative interview using the proforma. The data were collected by the principal investigator. The data were collected in an enclosed chamber ensuring the privacy of the participants. 2.11 End Point of Study: The study was terminated if: (i) A participant decided to withdraw from the study. (ii) After completion of the data collection. 2.12 Statistical analysis plan: The coded data were imported into Stata 17.1 version for analysis. For the continuous data, the author calculated the mean, median, mode, standard deviation, and interquartile range. For discrete data, the author calculated and reported frequency, proportion, and percentage. 2.13 Funding: There was no funding for this study. The participants were not paid any type of fee/incentive to participate in the study.

RESULTS

To recruit the participants for the present study, the authors approached a total of 309 women: 15(4.9%) women were excluded following selection criteria, 7(2.3%) women refused to participate in the study, and the remaining 287 (92.9%) women were enrolled in the present study. The mean and the median age of the participants was 24.2 (± 3.1) and 23 years. The age of participants ranged from 19- 29 years. Religion wise most participants were Hindu (78.4%) and the remaining 21.6% were Muslim. Most lactating mothers had school-level education and none of the study participants was illiterate (Table 1). Lastly, for most of the participants, it was her first child (parity=1) and 28.9% of study participants had only two children.

The mean age at marriage among the participants was 22.1 years. The median interval between the marriage and the birth of the first child was 19 months. Among the multiparous women, the median time interval between two successive childbirth was 27 months.

Table 1: Demographic details of participants (n=287)

Variable	n	%
Age group		
<=20	65	22.7
21-25	164	57.1
26-30	58	20.2
Education Level		
Up to high school	126	43.9
Higher Secondary	93	32.4
College-educated	68	23.7
Religion		
Hindu	211	73.5
Muslim	52	18.1
Christian	24	8.4
Number of alive children		
1	129	44.9
2	83	28.9
3	47	16.4
4 or more	28	9.8

Table 2: Fertility desire among participants (n=287)		
Variable	n	%
Want more children		
Yes	183	63.8
No	104	36.2
Want more children now (n=183)		
Yes	45	24.9
No	138	75.4
Menses have restarted		
Yes	128	44.6
No	159	55.4

Age of youngest child (in months)		
<6	68	23.7
6-12	84	29.3
13-18	86	30.0
19-24	49	17.1

Table 2 illustrates the desire for future children among study participants. A total of 183 (63.8%) women expressed the desire for more children. However, of these 183 participants only 45 (24.9%) women expressed the desire to have children right now. The

menses had returned among 44.6% of participants at the time of the interview. The mean age of the youngest child at the time of the interview was 11.5 months.

Table 3: Knowledge about various contraceptives (n=287)		
Method	n	%
Female sterilization	270	94.1
Male sterilization	244	85.0
IUCD	184	64.1
Pills	266	92.7
Injectables	143	49.8
Male condom	279	97.2
Female condom	13	4.5
Emergency contraception	198	69.0
Diaphragm	19	6.6
Foam or jelly	8	2.7
Lactational amenorrhoea method (LAM)	127	44.3
Standard days method	88	30.7
Rhythm	73	25.4
Withdrawal	198	69.0
The median number of modern methods known	5	

Table 3 shows the knowledge among participants about various methods of contraception. The modern method of contraception known to most participants were: Male condoms (97.2%), female sterilization (94%), and pills (92.7%). Among traditional methods of contraception, the most known method was coitus interruptus/withdrawal (69%). The awareness about foam/jelly (2.7%), female condoms (4.5%) and diaphragm (6.6%) were the lowest among study participants.

Table 4 gives details about the current method of contraception used by the couple. A total of 176 (61%) study participants reported using any method of contraception during their last sexual intercourse. The single most common method used by the couple was a male condom (21%) followed by oral pills (16.5%) and IUCD (14.8%). The permanent methods of contraception were used by 16.5% of participants (female sterilization = 14.8% and male sterilization = 1.7%). The Coitus interruptus/withdrawal method was used by only 20 participants.

Table 4: Current Method used for Contraception (n=287)		
Method	n	%
Used any method of contraception during the last intercourse		
Yes	176	61.3
No	111	38.6
Type of Method used during last intercourse (n=176)		
Female sterilization	26	14.8
Male sterilization	3	1.7
IUCD	26	14.8

Pills	29	16.5
Injectables	23	13.1
Male condom	37	21.0
Emergency contraception	4	2.3
Lactational amenorrhoea method (LAM)	8	4.5
Withdrawal	20	11.4

Table 5 illustrates the total-, met-, and unmet needs for contraception among study participants. Of the total 287 participants, 242 participants did not want a pregnancy at the time of the interview, thus, the demand for contraception was 84.3% (spacing= 48.1% and limiting = 36.2%). As can be seen from table 5, the total unmet need for contraception was 24.3%: spacing (16%) and limiting (8.3%).

Table 5: Current practices related to contraception (n=287)	
	%
Demand for Contraception	
For Spacing	48.1
For Limiting	36.2
Total	84.3
Met Demand for Contraception	
For Spacing	32.1
For Limiting	27.9
Total	60.0
Unmet need for demand for contraception	
For Spacing	16
For Limiting	8.3
Total	24.3

Table 6: Contraceptive Knowledge and Practices among participants by their educational status (n=287)			
	Up to high school (n=126)	Higher Secondary (n=93)	College Level (n=68)
Used contraception during last intercourse			
Yes	69 (54.8%)	56(60.2%)	51 (75.0%)
No	91 (45.2%)	53 (39.8%)	17 (25.0%)

P-value = 0.021			
Number of Contraceptive Methods Known (out of 9)			
<=4	87 (69.0%)	59(63.4%)	21 (30.9%)
>=5	39 (31.0%)	34(36.6%)	47 (69.1%)
P-value <0.0001			
Unmet need for contraception			
Yes	10.2	8.3	5.8

Table 6 illustrates the knowledge and contraceptive practice of participants according to their educational status. A total of 54.8%, 60.2%, and 75.0% of high school-educated, higher secondary educated, and college-educated participants, respectively used a contraceptive method during last intercourse ($p=0.021$). A total of 31.0%, 36.6%, and 69.1% of high school-educated, higher secondary educated, and college-educated participants, respectively knew about more than 5 methods of modern contraception ($p <0.0001$). Lastly, the unmet need for contraception among high school-educated, higher secondary-educated, and college-educated participants was 10.2, 8.3, and 5.8, respectively.

DISCUSSION

As mentioned earlier, the postpartum period is a very crucial time in the life of a woman. The postpartum period is marked by the reversal of physiological changes, breastfeeding the newborn and resumption of daily activities. Pregnancies in quick succession are harmful to the woman, her children, and her family(3,6). Thus, the adoption of family planning methods for the first two years after the birth of a child can have a multidimensional impact on the well-being of the women(3,6). Therefore, we conducted this study among 287 lactating women as participants for assessing their knowledge and practices regarding contraception.

In the present study, the modern method of contraception known to most participants were: Male condoms (97.2%), female sterilization (94%), and pills(92.7%). In the present study, among the traditional method of contraception, the most known method was coitus interruptus/withdrawal (69%). The awareness about foam/jelly (2.7%), female condoms (4.5%) and diaphragm (6.6%) werethe lowest among study participants.

In the present study, about 61% of study participants reported using any method of contraception during their last sexual intercourse. According to NFHS-5, about 78% of all currently married women aged 15-49 years residing in the Bhopal district were using the contraceptive method which increased from 53% during NFHS-4(8). In comparison, Neravi A et al., conducted a study among lactating women and

reported that about 54% of the participants were using any type of contraceptive method(12). Similar to our findings, Gebremariam A and Gebremariam H. reported that about 68% of lactating women were using some type of contraceptive method(13). Mohammed AT et al. reported that about 88.5% of breastfeeding mothers practised one or other methods of contraception (including both modern and traditional contraceptives)(14).

In the present study, the single most common method used by the couple was a male condom (21%) followed by oral pills (16.5%) and IUCD (14.8%). Like our findings, NFHS-5 reported that among currently married women the most common spacing method used was also male condoms (17.3%) which increased from 12.5% during NFHS-4(8). A study conducted by Neravi A et al. reported that the most common type of contraceptive method was a male condom followed by Cu-T(12). In contrast, Gebremariam A and Gebremariam H. conducted a study in Ethiopia and reported that the most common method of contraception used by lactating women was an injectable contraceptive (Depo-Provera)(13). Mohammed AT et al. reported that most breastfeeding mothers were using natural/traditional contraception (62.5%) followed by condoms (17.5%), IUCD (5.0%), oral contraceptives (3.5%), and breastfeeding (11.5%)(14).

In our study, the most common permanent method of contraception was female sterilization (14.8%).According to NFHS-5, female sterilization was used by about 46% of currently married women aged 15-49 years(8). The significant difference in the use of female sterilization could be attributed to the difference in the age group of the surveyed population. In our study, male sterilization was used by only 1.7% of couples. In comparison, NFHS-5 reported that only 0.6% of currently married were using male sterilization. Thus, it is safe to conclude that male sterilization is not a popular method of contraception among residents of Bhopal.

In the present study, the most common traditional method known to participants was the withdrawal technique (69%). Neravi A et al., reported that about 50% of the lactating mothers knew about the coitus interruptus/withdrawal technique(12). In the present

study, the most common traditional method of contraception used was coitus interruptus/withdrawal (11.4% of participants). As per NFHS-5, the two most common traditional method used by women was the rhythm method and the withdrawal method.

In the present study, the total unmet need for contraception was 24.3%: spacing (16%) and limiting (8.3%). According to NFHS-5 the total unmet need for contraception in Madhya Pradesh was 8%. Also, as per the same survey, the total unmet need for contraception in the Bhopal district was 9.6%. Further, as per NFHS-4 the total unmet need for contraception in the Bhopal district was 15.7%. The difference in the total unmet need between our findings and the findings of the NFHS-5 could be attributed to the surveyed population. In the present study, we exclusively involved lactating women who have an immediate need for contraception and some of whom expressed a desire to have more children. In comparison, the NFHS involved all married women aged 15-45 years irrespective of breastfeeding status. Thus, the difference in age and breastfeeding status among the surveyed population could explain the difference in the findings of the two studies. Further, according to NFHS-5, the total unmet need for women in the age group 20-24 and 25-29 was 16.7 and 11.0%. This is close to our observation among women of the same age.

CONCLUSION

The knowledge about various modern contraceptive methods was the was satisfactory among the study participants (lactating mothers), however, this knowledge failed to translate into meaningful practices because about 25% of women had an unmet need for contraception. Lactating mothers with higher education status had knowledge about more modern contraceptive methods and had fewer unmet needs for contraception. In the light of present study's findings, there is a need to strengthen the antepartum and postpartum family planning services.

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