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Research Article

A STUDY ON CONTRACEPTIVE USAGE AMONG POSTPARTUM WOMEN IN BHUBANESWAR, ODISHA

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ABSTRACT

India with a population of 1.3 billion people and nearly 18% of the world's population is the second most populous country in the world. Contraceptive usage during postpartum period, being critical for maternal and child health; the study was undertaken to estimate prevalence of contraceptive usage among postpartum women and to assess reasons for non-usage. A cross-sectional study was undertaken in the urban field-practice area of Kalinga Institute of Medical Sciences, Bhubaneswar, from November 2016-March 2017; using a pre-structured questionnaire with socio-demographic variables, obstetric history, details of mother and baby, family planning awareness and practices. From a list of postpartum women registered in the postnatal clinic, those satisfying inclusion criteria and giving consent were taken, by simple random sampling, till the desired sample-size of 240 was reached. Data was analysed using EpiInfo 7. 72.1% were in the age group of 19-25 years; 79% were Hindus. 20.4% participants were using some form of contraception, 65.3% of whose husbands were using male condoms and 22.5% were using IUCDs. The main reason for not using postpartum contraception was lack of knowledge and access. 87.1% of the women had heard about some or the other methods. 12.9% answered correctly about temporary methods of contraception. 48.3% had heard about contraceptive methods from their husbands. Only 6.3% women knew about safe period, and 2.1% had correct knowledge about advantages of spacing methods. Overall usage of postpartum contraception was low. The study concludes that family planning methods and contraceptive practices need more awareness among the study population.

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INTRODUCTION

India is the second most populous country in the world, with a population of 1.3 billion people, which is nearly 18% of the world's population (Melrose *et al.*, 2015). Population explosion is the main obstacle to the country's economic and social development. India was the pioneer nation to launch a family planning programme in 1951 with the major objective to control the population with the available resources. According to NFHS-4 data, though the total fertility rate (TFR) of India is 2.2 children per woman (International Institute for Population Sciences, 2016), which is above the national target of 2.1 children per woman. Though Odisha has reached the target TFR of 2.1, (Indian Institute for Population Sciences, 2015) there is still a long way to go when it comes to contraceptive use, birth spacing and maternal and child health. India is in the late expanding phase of the demographic cycle in which birth rate exceeds mortality rate. As a result, the country's population is growing rapidly and needs immediate intervention and control.

Contraceptive use during postpartum period is critical for both maternal and child health. There are several safe and effective methods of contraception that women can use and limit family size, including those used immediately postpartum, to optimize birth spacing. The provision of quality family planning services in the postpartum period has the potential to reduce the voluntary termination of unwanted pregnancies and effect a reduction in both maternal mortality and morbidity arising from unsafe abortions and inadequate spacing of births, respectively (Pasha *et al.*, 2015). The acceptance of contraceptive methods varies within societies and also among different castes and religious groups. The factors responsible operate at the individual, family and community level with their roots in the socio-economic and cultural milieu of Indian society (Rao *et al.*, 2016).

Family planning can avert more than 30% of maternal deaths and 10% of child mortality if couples space their pregnancies more than two years apart (Cleland *et al.*, 2006). Postpartum mothers, therefore, are a very vulnerable population whose awareness regarding contraception and their contraceptive

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practices need to be assessed, intervened and promoted in order to bring about a positive change in the demography of our country and in turn improve the maternal and child health. Therefore, keeping the following objectives in mind this study was undertaken:

- To estimate prevalence of contraceptive usage among postpartum women;
- To assess the reasons for non-usage of contraception.

METHODOLOGY

Study type: Community based cross-sectional study

Field of study: Urban field-practice area of Kalinga Institute of Medical Sciences (KIMS), Bhubaneswar. The Urban Health & Training Centre (UHTC), of KIMS is located in Niladri Vihar and caters to a population of around 12,500.

Study Population: Postpartum mothers residing in the urban field practice area of KIMS, Bhubaneswar.

Operational Definition: Postpartum contraception was defined as use of any family planning method by a woman within six months of delivery.

Sample size and Sampling technique: The population of the field-practice area of UHTC is 12,500 approximately. According to Sample Registration system (SRS) -2015 data, the crude birth rate of Odisha is 19.2 per 1000 population ("Sample Registration System (SRS BULLETIN)", 2016). Taking the CBR as 19.2 the sample size was calculated to be 240.

Simple random sampling was done from the list of postpartum women registered in the postnatal register at the UHTC till the appropriate sample size of 240 was reached.

Inclusion criteria

- Postpartum women who had delivered in the last 6 months prior to commencement of the study.
- Registered in the Urban Health & Training centre.
- Residing in the area since a minimum of one year.

Exclusion criteria

- Mentally unstable women.
- Not giving consent.

Study period: November 2016 to March 2017.

Study tool and data collection: A predesigned, pretested, semi-structured interview schedule was used to collect data on socio-demographic variables, obstetric history, details of mother and baby, awareness and practices of contraceptive methods. Height, weight and other necessary anthropometric measurements were noted. Interview was conducted on individual basis. This was followed by one to one counselling for the women regarding various suitable methods of contraception. The advantages and drawbacks were explained and patients were offered "cafeteria approach" to use any contraceptive method they wanted.

Statistical test: Data was analysed using mean, standard deviation, proportion and frequency as suitable. Chi-square test was applied and a p value of <0.05 was considered significant.

Data was entered in Microsoft excel spreadsheet and analysed using EpiInfo 7 software (version 7.1.5.2) in the department of Community Medicine KIMS, Bhubaneswar.

RESULTS

A total of 240 postpartum women were included in the study. The mean age of the study population was 23.61±3.170 years. Most (72.1%) of the women were in the age group of 19-25 years. The mean age at marriage was found to be 19.27 ± 1.213 years. The mean age of menarche of the study population was found as 12.22± 0.93 years.

The prevalence of postpartum contraceptive use was found to be 20.4%, i.e. 49 used some or the other form of contraceptives, and 191 (79.6%) did not practice any form of contraception. Table 1 shows the socio-demographic characteristics of the study population and their contraceptive usage.

Table 1 Socio-demographic characteristics with contraceptive usage among study population.

| Socio-Demographic characteristics | Contraceptive Usage | | p-Value |
|-----------------------------------------------------------|---------------------|-------------|---------|
| | YES (n=49) | NO (n= 191) | |
| Age group | | | |
| <18years (n= 5) | 0 | 5 | 0.0246 |
| 19-25 years (n= 173) | 33 | 140 | |
| 26-30 years (n=51) | 10 | 41 | |
| 31-35 years (n=11) | 6 | 5 | |
| Religion | | | |
| Hindu (n= 189) | 39 | 150 | 0.5117 |
| Muslim (n=46) | 10 | 36 | |
| Christian (n=5) | 0 | 5 | |
| Education | | | |
| Illiterate (n=55) | 23 | 32 | 0.0002 |
| Primary school certificate (n=125) | 16 | 109 | |
| Middle school certificate (n=55) | 10 | 45 | |
| High school certificate (n=5) | 0 | 5 | |
| Occupation | | | |
| Housewives (n=205) | 44 | 161 | 0.2579 |
| Unskilled workers (n=25) | 5 | 20 | |
| Clerical / shop owner/farmer (n=10) | 0 | 10 | |
| Income (rs) | | | |
| 2,165 – 6,430 (n=25) | 0 | 25 | 0.003 |
| 6,431 – 10,718 (n=116) | 33 | 83 | |
| 10,719 – 16,077 (n=89) | 16 | 73 | |
| 16,078 – 21437 (n=10) | 0 | 10 | |
| Ses (according to kuppuswamy socio economic scale) | | | |
| Lower middle (n=5) | 0 | 5 | 0.5598 |
| Upper lower (n=235) | 49 | 186 | |
| Parity | | | |
| 1 (n=126) | 17 | 109 | 0.0004 |
| 2 (n= 61) | 20 | 41 | |
| 3(n=42) | 6 | 36 | |
| 4 and above (n=11) | 6 | 5 | |
| Age at menarche | | | |
| 10 and below (n=5) | 0 | 5 | 0.0003 |
| 11 (n=42) | 16 | 26 | |
| 12(n= 115) | 11 | 104 | |
| 13(n=52) | 16 | 36 | |
| 14 and above (n=26) | 6 | 20 | |
| Age at marriage | | | |
| 18 and below (n=69) | 6 | 63 | <0.0001 |
| 19 (n=72) | 16 | 56 | |
| 20 (n=68) | 11 | 57 | |
| 21(n=16) | 6 | 10 | |
| 22 and above (n=15) | 10 | 5 | |
| Type of delivery | | | |
| Normal delivery (n=156) | 21 | 135 | 0.0013 |
| Caesarean section (n=69) | 23 | 46 | |
| Normal delivery with forceps(n=15) | 5 | 10 | |

On application of chi-square test a highly significant association ($p < 0.001$) was found between contraceptive usage and education of the women, income, parity, menarche, age at marriage and type of delivery among the postpartum women. Significant association ($p < 0.05$) was also found between age group of the participants and their contraceptive usage. Occupation and socio-economic class did not show any association with contraceptive usage.

The most (65.3%) common type of contraceptive method practiced among them was barrier method (male condom), being used by their partners. Around 22.5% used Intrauterine Contraceptive Devices (IUCDs). Figure 1 depicts the common types of contraceptives used by the study participants.

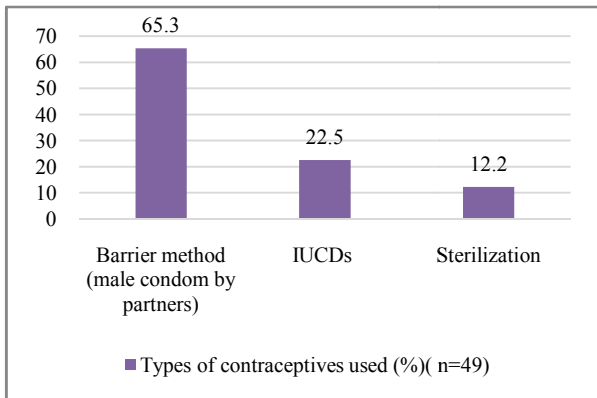


Figure 1 Common Types of Contraceptives Used

When asked questions to assess the awareness of the postpartum women about contraception, 31 (12.9%) of them answered correctly about temporary methods of contraception. 37(15.4%) knew about permanent contraceptive methods. 98(40.8%) women said that these contraceptives are available free of cost, 27 (27.6%) out of 98 could correctly answer where they are available.

Only 15 (6.3%) women knew correctly about safe period, and among those 15, 10(66.7%) believed that the safe period method was not always effective. 46 (19.2%) study participants knew what emergency contraception was and 5 (2.1%) had correct knowledge about advantages of spacing methods.

As low as 21(8.8%) women knew that barrier contraceptives also protect against sexually transmitted diseases, AIDS and hepatitis.

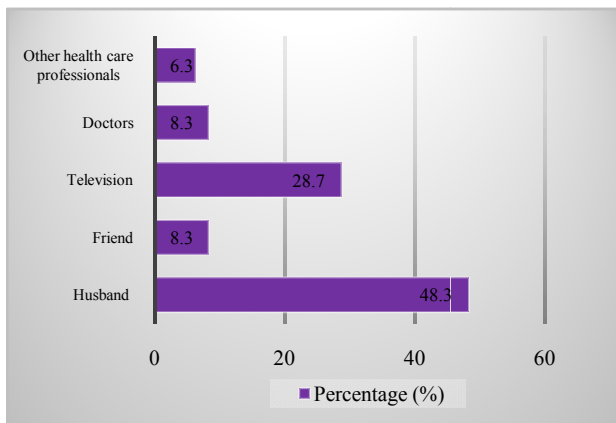


Figure 2 Source of Information Regarding Contraceptives (N=209)

*Multiple Responses

209 (87.08%) of the respondents had heard about one or more methods of contraception. Most (43.8%) common source of information about contraceptives was from their husbands. Figure 2 shows the sources of information regarding contraception as stated by the study participants.

The number of postpartum women not using any contraception was very high, 79.6% women were found not to use any form of postpartum contraceptives. The reasons stated by them for the non-usage of postpartum contraception is shown in Table 2.

Table 2 Reasons for not using any methods

| Reasons for not using any method * | Frequency (n=191) | Percentage (%) |
|------------------------------------|-------------------|----------------|
| Lack of knowledge | 69 | 36 |
| Is breast feeding | 41 | 21 |
| Lack of access | 30 | 16 |
| Fear of side effects | 19 | 10 |
| Want more children | 16 | 8 |
| Lack of money | 5 | 3 |
| Any other | 11 | 6 |

*The single most suitable reason cited for non-usage of contraception was considered.

DISCUSSION

This study was done among 240 postpartum women residing in the field practice area of UHTC of Kalinga Institute of Medical Sciences, Bhubaneswar. The mean (\pm S.D.) age of the study participants was found to be 23.61 (\pm 3.17) years. Most (72.1%) of the women belonged to the age group of (19-25) years. Similar findings were reported by (Sidhu *et al.*, 2015), in a study done among postpartum mothers, in Bhatinda, where maximum study participants were in the age group of (18-24) years. (Mahawar *et al.* 2011) reported in their study, done among mothers of infants in Indore, that maximum women (38%) were in the age group of 22-24 years of age.

The mean age at marriage of the postpartum women in our study was found to be 19.27 \pm 1.213 years. (Sidhu *et al.*, 2015) also reported that most women married after 18 years of age. (Rao *et al.*, 2016) reported in their study that 79% got married between 15-20 years of age. This difference in the age at marriage can be explained because of different geographical location of the study areas and different cultural practices.

As high as 53% women, in our study were illiterate. In a study done in rural Karnataka (Kripa *et al.* 2017), it was found that only 3% women were illiterate. Lower rates of literacy is similar to the national figures of the state. (Rao *et al.* 2016), reported a much higher rate of 81% illiterate women.

Maximum i.e. 79% among the 240 study participants were Hindus, Muslims were 19%. (Mahawar *et al.* 2011) reported similar findings in their study, where most women (78%) were Hindus. (Kripa *et al.*, 2017) reported a different finding, where most (82%) were Muslims and only 15% were Hindus. This can also be explained because of the different areas where the studies were undertaken.

Using Modified Kuppaswamy Scale, it was found that most women (98%) belonged to the socio-economic class-Upper Lower. (Rao *et al.*, 2016) used Modified B.G. Prasad socio economic scale and reported that maximum number study participants belonged to Low socio economic class.

A highly significant association ($p < 0.001$) of contraceptive usage was found with education of the women, income, parity, menarche, age at marriage and type of delivery among the postpartum women. Significant association ($p < 0.05$) between age group of the participants and their contraceptive usage was also seen. The study by (Sidhu *et al.*, 2015) also showed quite similar results.

This study reported a low prevalence of postpartum contraceptive usage of only 20.4%. (Singh *et al.*, 2013) found an overall (both urban and rural) prevalence of postpartum contraceptive usage to be 25.4% and that in urban area only, to be 34.8%. (Sidhu *et al.*, 2015) reported a prevalence of 30.4%. (Mahawar *et al.* 2011) reported a much higher prevalence of postpartum contraceptive use of 62%. According to NFHS-4 data (Indian Institute for Population Sciences 2015), the prevalence of contraceptive use in reproductive age group women (15-49 years) Odisha of is 57.3% ; in Urban Odisha separately, the prevalence is slightly higher at 61.3%. These differences in findings from our study could be attributed to the fact that the study population in our study consisted of only postpartum women.

When asked about the type of contraceptives used, condom (barrier method by husband) was found to be used by most women (62%) in this study. It was followed by IUCDs (22.45%) and permanent method or sterilization (12.24%). (Sidhu *et al.*, 2015) reported similar results where condom was used the maximum (71.4%). (Kripa *et al.*, 2017) reported in their study that 75% women were using permanent methods and 25% were using temporary methods of contraception in their study.

87.1 % postpartum women stated that they heard about some or the other methods of contraception. Similar results was found in a study done by (Kripa *et al.*, 2017) where 88% postpartum women were aware about contraception. (Rao *et al.*, 2016) reported a much lesser percentage of 46% women having awareness about contraception. Maximum number (48.3%) of study participants stated that their source of information about contraception were their husbands, the next common source of information among them was television (28.7%) followed by their friends (8.3%). Only 8.3% women said that they received information from their doctors, and an even lesser percentage of women (6.3%) said that other healthcare professionals were their sources of information. (Mahawar *et al.*, 2011), found in their study that most women (88%) attributed television to be their source of information and less than 50% women reported doctors to be the sources.

In this study, it was found that lack of knowledge was the most common (36%) reason for not using contraceptives among most postpartum women. 21% women said that they were currently breastfeeding ; lack of access (16%), fear of side effects (10%) were the other common reasons for non-usage. (Sidhu *et al.*, 2015) also reported very similar results, where 34.4% postpartum women attributed lack of knowledge to be the reason for not using contraceptives.

Limitations: Being a cross-sectional study, it was not possible to establish causal relationship between the sociodemographic factors studied and practices of postpartum contraception. Contraception and family planning being a sensitive issue, there could have been issues of social-desirability bias.

CONCLUSION

The prevalence of postpartum contraceptive usage was found to be surprisingly low (20.4%) among the study population. Though many (87.1%) women stated that they had heard about some or the other methods; the percentage actually practicing contraception was very low. They stated that their reason for not using contraception was because they did not have much knowledge about it. Fear of side effects and the fact that they were currently breastfeeding were also other reasons for such low percentage of users. Therefore, to address this issue, proper information about contraception and their choice of contraceptives should be provided. Education and communication with the postpartum women, and improved social and welfare services should be provided. Motivation and involvement of the males towards the usage of male contraceptive measures (both temporary and permanent) is also equally necessary.

Thus, the study concludes that, the study population needs more awareness and proper information regarding contraception, choice of contraceptives and various family planning methods.

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