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RESEARCH ARTICLE

Beyond Access: Socioeconomic Drivers of Reversible Contraceptive Decisions in an Indian Tertiary Care Context

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Abstract: ***Background***: Reversible contraceptive methods offer significant flexibility in family planning, yet their use remains relatively low in India, with a strong preference for permanent methods like sterilization. Socioeconomic factors, including education, income, and occupation, along with the availability of counselling, influence contraceptive choices. This study aims to evaluate the awareness, usage patterns, and future intentions regarding reversible contraception among women attending a tertiary care centre, and to explore the impact of these socioeconomic determinants on contraceptive decision-making. ***Materials and Methods:*** A cross-sectional study was conducted at Saveetha Medical College and Hospital, Chennai, over six months, involving 150 women aged 15–49 years. Participants were selected by consecutive sampling. Data were collected using a pre-tested, semi-structured questionnaire covering socio-demographics, contraceptive awareness, usage patterns, and influencing factors. Data were analyzed using SPSS version 25. ***Results:*** Among the 150 participants, 47.3% were primigravida and 52.7% multigravida, with 60.7% having previous LSCS. Awareness of condoms was universal (100%), while 48.7% and 51.3% were aware of DMPA injections and IUCDs respectively. Half of the women (50%) had not adopted any contraceptive method postpartum. Among users, DMPA injections (15.3%) were the most chosen method, followed by OCPs (14%) and Copper T (13.3%). Counselling significantly influenced future contraceptive intentions (p=0.021). In the three-month follow-up, among 34 participants, 79.4% reported satisfaction with their chosen method. ***Conclusion:*** Although contraceptive awareness was high, the uptake of reversible methods was limited. Socioeconomic determinants and effective counselling played a pivotal role in shaping contraceptive choices. Strengthening targeted counselling efforts is essential to bridge the gap between awareness and adoption of reversible contraception.

Keywords: Contraceptive Awareness, Family Planning Counselling, Maternal Health Services Reversible Methods

INTRODUCTION

India, with its vast and heterogeneous population, has witnessed a remarkable transformation in family planning services over the past few decades. Despite the availability of a diverse basket of contraceptive options, including reversible methods such as intrauterine contraceptive devices (IUCDs), injectables, implants, and oral contraceptive pills, the uptake remains skewed towards permanent methods, particularly female sterilization.1 This persistent trend reflects deep-rooted sociocultural norms, gender dynamics, and systemic barriers within the healthcare delivery system.2

Socioeconomic determinants such as education, income, occupation, and urban-rural residency significantly influence contraceptive choice, often dictating access, awareness, and autonomy in decision-making.2,3 Reversible methods, though medically advantageous due to their flexibility and non-permanency, are often underutilized due to misconceptions, inadequate counselling, or lack of informed choice.4,5 Understanding the interplay between these socioeconomic factors and contraceptive behaviour is essential for tailoring public health interventions that align with India's reproductive health goals under the National Family Planning Programme and Sustainable Development Goals (SDG 3.7).6,7

While previous studies have primarily explored contraceptive prevalence and patterns at the National or Community level, limited data exists from tertiary care institutions that cater to a more medically engaged and demographically varied population. A focused inquiry in such settings may offer nuanced insights into how socioeconomic status affects contraceptive choices, particularly regarding reversible methods. Hence the primary objective of our study was to evaluate the influence of socioeconomic factors on the choice and utilization of reversible contraceptive methods among clients attending a tertiary care centre in India.

MATERIALS AND METHODS

Hospital-based cross-sectional study was conducted in the Department of Obstetrics and Gynaecology at Saveetha Medical College and Hospital, Chennai, over a period of six months from January December, 2024. The study population comprised women of reproductive age (15-49 years) attending the outpatient and inpatient services. Participants were selected using a consecutive sampling technique until the desired sample size was achieved. The sample size was calculated based on the prevalence of reversible contraceptive usage reported in recent National Surveys, with a 95% confidence level

and 5% margin of error, resulting in a final sample of 150 participants. Ethical approval was obtained from the Institutional Ethics Committee of Saveetha Medical College. After obtaining written informed consent, data were collected using a pre-tested, semi-structured questionnaire administered through face-to-face interviews in the local language by trained female investigator to ensure privacy and confidentiality. The tool captured socio-demographic variables (age, education, occupation, income, and residence), contraceptive history, type and duration of reversible method used, and factors influencing contraceptive decision-making. Data were entered in Microsoft Excel and analysed using SPSS version 25. Descriptive statistics such as frequencies and proportions were used to summarize categorical variables, while mean and standard deviation were reported for continuous variables. Bivariate analyses were performed using appropriate statistical test to assess associations between socioeconomic variables and type of reversible contraception.

RESULTS:

A total of 150 women of reproductive age participated in the study. The mean age of the participants was 27.33 ± 5.34 years. The majority (59.3%) belonged to the 20–30 years age group (n=89), followed by 33.3% (n=50) in the 30–40 years category, and 7.3% (n=11) were under 20 years of age. The sociodemographic details of the study participants are given in table no. 1.

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	< 20	11	7.3
	20–30	89	59.3
	30–40	50	33.3
Residence	Rural	80	53.3
	Urban	70	46.7
Education Level	No formal education	40	26.6
	Primary school	42	28.0
	High school	43	28.7
	College	25	16.7
Occupation	Homemaker	41	27.3
	Daily wage worker	43	28.7
	Farmer	39	26.0
	Skilled worker	10	6.7
	Business	9	6.0
	Professional	8	5.3

Table - 1: Sociodemographic variables

The study population comprised a near balance of gravidity, with 47.3% being primigravida (first-time mothers) and 52.7% being multigravida (having given birth previously). Regarding their prior delivery experiences, a significant majority (60.7%) had undergone a lower segment caesarean section (LSCS), while the remaining 39.3% had a history of vaginal delivery. The

Figure - 1: Maternal Parity Status

Figure - 2: Mode of previous delivery

Among our study participants, a large majority (92.0%, n=138) reported previous contraceptive use. Awareness of condoms was universal (100%, n=150). However, awareness of other methods was lower, with 48.7% (n=73) aware of the DMPA injection and 51.3% (n=77) aware of IUCD. The awareness and practices of contraceptive usage is given in the following table - 2.

Awareness and Practices	Category	Frequency (n)	Percentage (%)
Previous contraceptive use	Yes	138	92.0
Awareness of Condom	Yes	150	100.0
Awareness of DMPA injection	Yes	73	48.7
Awareness of IUCD	Yes	77	51.3

Table - 2: Contraceptive Awareness and Practices Among Participants

The primary source of contraceptive information for the surveyed participants was the internet/media, cited by 49.3% (n=74). Family members were the second most common source, accounting for 32.0% (n=48) of the responses, followed by health care workers at 27.3% (n=41)

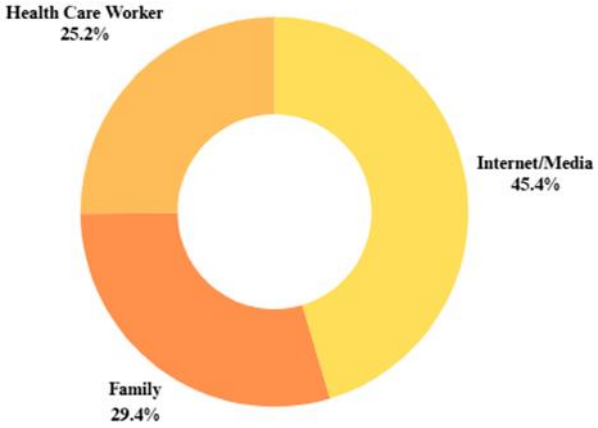

Figure - 3: Source of contraceptive information

Among the 79 multigravida participants and 71 primigravida participants, condom awareness was 100% in both groups. For the DMPA injection, awareness was approximately 41.8% (33/79) among multigravida and 56.3% (40/71) among primigravida. IUCD awareness was about 54.4% (43/79) in multigravida and 47.9% (34/71) in primigravida. Awareness of permanent sterilization was roughly 84.8% (67/79) for multigravida and 73.2% (52/71) for primigravida.

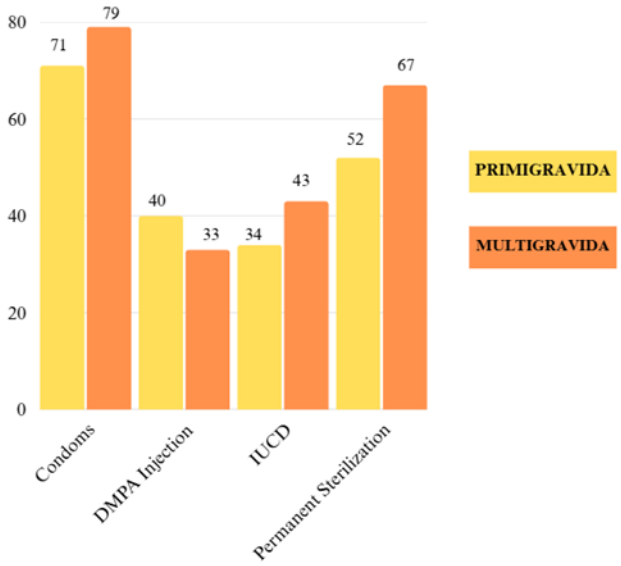

Figure - 4: Awareness of various contraceptive based on parity

In this study, all the women regardless of mode of delivery were aware of condom use. Awareness of the DMPA injectable method was reported by 42.9% of those who had undergone LSCS and 57.6% of those who delivered vaginally. Knowledge about intrauterine contraceptive devices (IUCDs) was similar across both groups, with 51.6% of LSCS participants and 50.8% of vaginal delivery participants reporting awareness. Additionally, 78% of women with LSCS and 81.4% of those with vaginal delivery were aware of permanent sterilization o. Overall, contraceptive awareness was high across both modes of delivery. The awareness regarding various types of contraceptives with respect to the mode of delivery is given in the following figure.

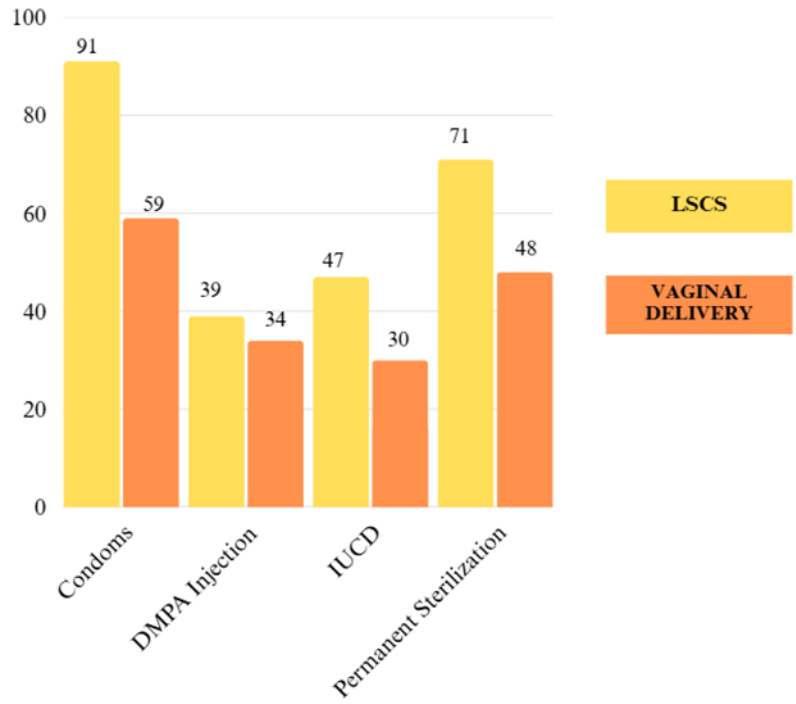

Figure - 5: Awareness on various modes of contraceptives with respect to Mode of Delivery

Among the postpartum women studied, half of the participants (50.0%) reported not adopting any contraceptive method following delivery. Among those who did initiate contraception, the most commonly adopted method was the injectable (DMPA) at 15.3%, followed closely by oral contraceptive pills (OCPs) at 14.0%. Copper T (IUCD) usage was reported by 13.3% of women, while condoms were the least commonly used method at 7.3%. These findings indicate a preference for long-acting and hormonal reversible methods among postpartum women who opted for contraception, although a substantial proportion remained without any method.

Postnatal Contraceptive Method Adopted	Frequency (n)	Percentage (%)
Condoms	11	7.3
Copper T	20	13.3
Injection	23	15.3
OCPs	21	14.0
None	75	50.0

Table - 3: Method adopted for postnatal contraception

Regarding future contraceptive plans, 35.3% of participants expressed intent to use contraception, while 26.0% indicated they would not. A significant proportion, 38.7%, remained undecided about their future contraceptive choices. Among the participants who received contraceptive counselling, 17.3% were counselled by nurses, 16.7% by doctors, and 13.3% by ASHA workers. In this study, 21 women who did not receive counselling, and 18 women who did, indicated that they would not use contraception in the future. For those who were undecided about future contraceptive use, 23 participants who did not receive counselling, and 35 who did, reported uncertainty. Lastly, 35.3% of women who received counselling expressed an intention to use contraception in the future, compared to only 26.0% of those who did not. The association between receiving counselling and future contraceptive plans was statistically significant ($p = 0.021$), suggesting that counselling may influence women's decisions regarding future contraceptive use.

Future Contraceptive Plans		No	Undecided	Yes	Total	P Value
Received Counselling	No	21	23	35	79	0.021*
	Yes	18	35	18	71	
Total		39	58	53	150	

Table - 4: Future Contraceptive Plans after Counselling

Following a 3-month follow-up, a total of 34 participants were successfully followed up. Among these, 79.42% reported being comfortable with their chosen contraceptive method, indicating satisfaction and adherence. However, 20.58% expressed discomfort or dissatisfaction with their method, highlighting the need for further counselling or adjustment of contraceptive options. This follow-up data underscores the importance of ongoing support to ensure that women are satisfied with and able to effectively use their chosen contraceptive methods.

Follow Up after 3 Months		Frequency	Percent
Comfortable with the method of Choice	Yes	27	79.42
	No	7	20.58
Total		34	100.0

Table - 5: Follow up after 3 Months

DISCUSSION

This cross-sectional study conducted at a tertiary care centre provides important insights into the socioeconomic determinants influencing reversible contraceptive choices among postpartum women in an Indian context. Our findings, revealing high levels of contraceptive awareness but relatively low adoption of reversible methods, are both consistent with and distinct from existing literature.

The mean age of the participants (27.33 ± 5.34 years) aligns with the demographic commonly targeted for family planning interventions in India. Similar age profiles were reported in the NFHS-5 (National Family Health Survey), where the mean age for contraceptive use was reported between 25-29 years.8

A majority (59.3%) of the participants were in the 20–30 years age bracket, consistent with previous studies showing that younger women are more receptive to family planning messages but may not consistently adopt long-term methods.9

Regarding education, 26.6% of women had no formal education, a finding comparable to studies such as by Sharma et al., who reported that lower educational status was significantly associated with lower contraceptive uptake.7 Higher education levels generally correlate with better awareness and utilization of reversible contraceptive methods.10 In our study, women with college-level education formed only 16.7% of the sample, pointing towards an urgent need for educational interventions focused on reproductive health.

Occupation-wise, most participants were homemakers or involved in unskilled labour such as farming and daily wage work. Prior studies have established that women from lower-income, labour-intensive occupations face more barriers to accessing family planning services, including misconceptions, affordability issues, and mobility constraints.11,12 Our findings reinforce this socio-occupational divide, where economic dependency often restricts contraceptive autonomy.

Interestingly, although 92% of participants reported previous contraceptive use and 100% were aware of condoms, the adoption of other reversible methods like IUCD (51.3%) and DMPA (48.7%) lagged significantly. This is in line with the NFHS-5 report, where condom use was 9.5%, but use of injectables and IUCDs remained lower (around 2% and 1.6% respectively) nationally.1

Other studies, such as by Srivastava et al., have highlighted similar gaps in reversible method utilization despite awareness, attributing the discrepancy to fear of side effects, limited counselling, and partner opposition.13

In our study, source of information significantly leaned towards media/internet (49.3%), with healthcare workers contributing to only 27.3% of knowledge dissemination. This shift toward media-based information is a double-edged sword; while it improves access, it may also propagate misinformation, as observed in earlier Indian studies.14,15 Effective media campaigns validated by healthcare professionals are therefore essential.

The adoption of contraceptive methods postnatally was relatively low. Despite universal awareness, half (50%) of the women did not adopt any contraceptive method after delivery. This gap mirrors findings by Jain et al., who reported postpartum contraceptive non-use rates of around 45% in similar tertiary settings.16

Among those who adopted contraception, injectables (15.3%) and oral pills (14.0%) were more popular than IUCDs (13.3%), again reflecting national trends where preference for short-term methods is high due to perceived lesser side effects and easier discontinuation.17

Counselling emerged as a critical factor influencing future contraceptive intent. Our finding that receipt of counselling was significantly associated with positive future contraceptive plans (p=0.021) echoes results from international studies as well. For instance, in a randomized trial by Whitaker et al., postpartum

counselling increased uptake of effective contraception by nearly 30%.18
A follow-up at three months showed that 79.42% of women were comfortable with their contraceptive choice. This is comparable to findings from a study in Nepal, where 81% of women continued their chosen method at three months.19

However, dissatisfaction among 20.58% of users warrants attention, especially to side-effect management and method switching, which are frequently cited reasons for early discontinuation.20

Parity and prior delivery mode did not appear to significantly alter contraceptive awareness patterns, although slightly higher awareness of DMPA and sterilization was noted among vaginally delivered women. These differences, though not statistically robust in our study, are noteworthy. Studies by Bansal et al. and Dhillon et al. have shown that women undergoing LSCS are less likely to accept IUCD immediately postoperatively compared to those with vaginal deliveries, often due to fear of infection or advice against insertion during surgery.21,22

Religious and cultural barriers, though not the focus of this study, indirectly surfaced through reasons for refusal, such as family opposition and religious beliefs. These factors have been consistently documented in Indian and global literature as significant hurdles to contraceptive uptake.3

Overall, the findings from this study corroborate earlier observations that while awareness levels are improving, significant gaps remain in actual adoption and continuation of reversible contraceptive methods in India. Socioeconomic determinants, particularly education and occupation, alongside counselling and health system engagement, continue to shape women's reproductive autonomy and choice. There is a need to strengthen counselling services, particularly postnatal and discharge counselling, and to integrate family planning more deeply into maternal and child health programs. Community-level interventions tailored to address sociocultural misconceptions, affordability concerns, and autonomy barriers are essential to enhancing the acceptance of reversible contraceptive methods.e, though the trends pointed in the same direction.

CONCLUSION

This study provides important insights into the patterns of reversible contraceptive use among women attending a tertiary care centre in India. Despite universal awareness of condoms, awareness regarding other reversible methods such as DMPA injections and IUCDs was moderate. Half of the participants did not adopt any postnatal contraception, indicating significant gaps between awareness and actual utilization. Socioeconomic factors such as education level, occupation, and prior counselling were found to significantly influence contraceptive choices. Women who received counselling were more likely to have future contraceptive plans, highlighting the critical role of healthcare providers in promoting informed decision-making. Furthermore, follow-up after three months showed high satisfaction rates among users, emphasizing the importance of ongoing support for contraceptive continuation. Strengthening comprehensive family planning counselling, addressing misconceptions, and improving access to a wider range of reversible methods could significantly enhance contraceptive uptake and reproductive autonomy among women. Targeted interventions at the community and hospital levels are essential to bridge the gap between knowledge and practice, ultimately contributing to better maternal and child health outcomes.

Conflicts of Interest: None
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