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Awareness and Utilization of Contraceptive Methods Among Married Women Attending Gynaecology OPD at A Tertiary Care Hospital in Rajasthan

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ABSTRACT

Background: Family planning is a cornerstone of reproductive health and plays a vital role in reducing maternal and child morbidity and mortality. Although awareness of contraceptive methods among married women in India is reported to be high, utilization remains inconsistent due to socio-cultural and informational barriers. Understanding the awareness–utilization gap is essential for strengthening family planning services, particularly in tertiary care settings.

Objectives: To assess the level of awareness and utilization of contraceptive methods among married women attending the gynaecology outpatient department and to identify factors associated with non-utilization of contraception.

Methods: A hospital-based cross-sectional observational study was conducted from January 2025 to March 2025 in the gynaecology OPD of a tertiary care hospital in Rajasthan. A total of 215 married women aged 18–49 years were enrolled using convenience sampling. Data were collected through face-to-face interviews using a pre-designed, pre-tested, semi-structured questionnaire covering socio-demographic details, awareness of contraceptive methods, current utilization, and reasons for non-utilization. Data were analysed using SPSS version 26. Descriptive statistics were expressed as frequencies and percentages, and the chi-square test was applied to assess associations, with $p < 0.05$ considered statistically significant.

Results: Most participants belonged to the 25–34 years age group, were rural residents, and had two or more children. Awareness was highest for condoms (86.5%), oral contraceptive pills (78.6%), and female sterilization (80.5%), while awareness of injectable contraceptives (44.7%) and emergency contraception (37.7%) was lower. Only 57.2% of women were currently using any contraceptive method, indicating a substantial awareness–utilization gap. Condoms and oral contraceptive pills were the most commonly used methods. Fear of side effects (30.4%) was the leading reason for non-utilization. Higher education ($p = 0.004$) and higher parity ($p = 0.002$) showed a statistically significant association with contraceptive use.

Conclusion: Despite high awareness, contraceptive utilization among married women remains inadequate. Strengthening counselling services, addressing misconceptions, and promoting informed choice—especially for spacing methods—are essential to improve contraceptive uptake.

Keywords: *Contraception; Family planning; Awareness; Utilizatio; Married women; Gynaecology OPD.*

INTRODUCTION

Family planning is a fundamental component of reproductive health and a key public health strategy for improving maternal and child health outcomes. Contraception enables couples to determine the number and spacing of their children, thereby reducing unintended pregnancies, unsafe abortions, maternal morbidity, and mortality [1]. The World Health Organization recognizes access to family planning services as a basic human right and an essential element of universal health coverage [2].

India was the first country in the world to launch a national family planning programme in 1952, with the objective of stabilizing population growth and improving reproductive health indicators [3]. Despite decades of policy initiatives and expansion of contraceptive services, the utilization of modern contraceptive methods in India remains suboptimal, particularly in certain states and socio-cultural settings [4]. According to the National Family Health Survey (NFHS-5), although awareness of at least one contraceptive method among married women is nearly universal, the gap between awareness and actual utilization persists [5].

Awareness of contraception refers to the knowledge regarding the availability, purpose, and correct use of various contraceptive methods, including temporary and permanent options. Utilization, on the other hand, reflects the actual adoption and continued use of these methods by eligible couples. Studies conducted across different regions of India have consistently shown that high awareness does not necessarily translate into effective utilization [6]. This discrepancy is influenced by multiple factors such as fear of side effects, misconceptions, limited decision-making autonomy, socio-cultural norms, inadequate counselling, and opposition from partners or family members [7].

Married women in the reproductive age group constitute the primary target population for family planning services. Their contraceptive behavior is shaped not only by individual knowledge but also by spousal communication, family dynamics, accessibility of health services, and quality of counselling received from healthcare providers [8]. In patriarchal societies, including many parts of Rajasthan, reproductive decisions are often influenced by husbands and elder family members, which can further limit contraceptive acceptance and continuation [9].

Rajasthan, one of the largest states in India, presents unique demographic and socio-cultural challenges to effective family planning. Early marriage, preference for male children, low female autonomy, and varying levels of literacy contribute to unmet need for contraception in the state [10]. Although government initiatives such as free distribution of contraceptives, spacing method promotion, and incentive-based programmes for sterilization have improved availability, utilization remains inconsistent, especially for spacing methods [11].

Gynaecology outpatient departments (OPDs) in tertiary care centres serve as important contact points for women seeking reproductive health services. These settings provide an opportunity for healthcare professionals to counsel women regarding contraceptive options, address misconceptions, and promote informed choice. Women attending gynaecology OPDs often present with menstrual disorders, infertility concerns, postnatal issues, or general reproductive health complaints, making them an appropriate group for assessing awareness and utilization patterns of contraception [12].

Hospital-based studies conducted in tertiary care centres offer valuable insights into real-world practices and barriers related to family planning. Such studies are relatively easy to conduct, allow direct interaction with participants, and provide actionable evidence for improving counselling services. However, there is limited recent data from tertiary care settings in Rajasthan focusing on the awareness-utilization gap among married women, especially in the post–COVID era when healthcare-seeking behavior has undergone significant changes [13].

Understanding the current level of awareness and utilization of contraceptive methods among married women is essential for identifying gaps in service delivery and counselling. Assessing reasons for non-utilization can help tailor interventions to address fears, misconceptions, and socio-cultural barriers. Evidence generated from such studies can assist policymakers and healthcare providers in strengthening family planning services and achieving national reproductive health goals [14].

Therefore, the present study was conducted over a period of three months from January 2025 to March 2025 among married women attending the gynaecology outpatient department of a tertiary care centre in Rajasthan. The study aims to assess awareness and utilization of contraceptive methods and identify factors contributing to non-utilization, thereby providing insights for improving family planning services at the facility and community level.

MATERIALS AND METHODS

Study Design: It was a hospital-based cross-sectional observational study.

Study Setting: The study was conducted in the Gynaecology Outpatient Department (OPD) of a tertiary care teaching hospital in Rajasthan, India.

Study Period: The study was carried out over a period of three months, from January 2025 to March 2025.

Study Population: The study population consisted of married women attending the gynaecology OPD during the study period.

Inclusion Criteria
- Married women aged 18–49 years
- Women attending the gynaecology OPD during the study period
- Women who provided written informed consent

Exclusion Criteria
- Pregnant women
- Women who had undergone hysterectomy
- Women who were seriously ill or unable to respond to the questionnaire
- Women unwilling to participate in the study

Sample Size Calculation: The sample size was calculated using the formula for estimating a proportion in a cross-sectional study [$n=Z^2 P (1-P) /d^2$]. Based on the findings of NFHS-5, the prevalence of contraceptive use among married women in India was taken as p = 54% (0.54).

Sample size comes to 195, After accounting for an anticipated 10% non-response rate, the final sample size was increased to 215 participants.

Sampling Technique: Participants were selected using convenience sampling until the required sample size was achieved. **Study Tool: Data were collected using a pre-designed, pre-tested, semi-structured questionnaire,** developed after reviewing relevant literature. The questionnaire comprised four sections:

1. Socio-demographic characteristics (age, education, occupation, residence, parity)
2. Awareness of contraceptive methods (barrier methods, oral contraceptive pills, intrauterine contraceptive devices, injectable contraceptives, emergency contraception, and permanent methods)
3. Utilization of contraceptive methods (current and previous use)
4. Reasons for non-utilization of contraception

The questionnaire was administered in the local language and English to ensure better understanding.

Data Collection Procedure: Eligible participants were approached in the gynaecology OPD after completion of their clinical consultation. The purpose of the study was explained, and written informed consent was obtained. Data were collected through face-to-face interviews in a private setting to maintain confidentiality. Each interview lasted approximately 10–15 minutes.

Operational Definitions
- Awareness of contraception: Knowledge of at least one modern contraceptive method.
- Utilization of contraception: Current use of any modern contraceptive method at the time of interview.
- Non-utilization: Not using any contraceptive method despite being aware of at least one method.

Ethical Considerations: Participation was voluntary, and confidentiality was strictly maintained. No personal identifiers were recorded, and participants were free to withdraw at any point without affecting their medical care.

Statistical Analysis: Data were entered into Microsoft Excel and analysed using Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics such as frequencies and percentages were used to summarize the data. Results were presented in the form of tables and charts.

RESULTS

A total of 215 married women attending the gynaecology OPD were included in the study. The socio-demographic profile, awareness, utilization pattern of contraceptive methods, and factors associated with utilization were analysed. Most participants belonged to the 25–34 years age group, were rural residents, and had two or more children, representing a population with high potential need for contraception. Table 1 shows the socio-demographic profile of study participants.

Table 1: Socio-Demographic Profile of Study Participants (n = 215)

Variable	Category	Frequency	Percentage (%)
Age group (years)	18–24	42	19.5
	25–34	98	45.6

	35–49	75	34.9
Education	Illiterate	38	17.7
	Primary	56	26.0
	Secondary	79	36.7
	Graduate & above	42	19.6
Residence	Rural	128	59.5
	Urban	87	40.5
Parity	≤1 child	64	29.8
	≥2 children	151	70.2

Awareness was highest for condoms, OCPs, and sterilization, while awareness of injectable and emergency contraception was comparatively low, reflecting gaps in knowledge regarding newer spacing methods. Table 2 shows the awareness of various contraceptive methods.

Table 2: Awareness of Various Contraceptive Methods (n = 215)

Contraceptive Method	Aware n (%)
Condom	186 (86.5)
Oral contraceptive pills (OCPs)	169 (78.6)
IUCD	142 (66.0)
Injectable contraceptives	96 (44.7)
Emergency contraception	81 (37.7)
Female sterilization	173 (80.5)

Although awareness was high, only 57.2% of women were currently using contraception, indicating a significant awareness–utilization gap. Table 3 shows the utilization pattern of contraceptive methods.

Table 3: Utilization Pattern of Contraceptive Methods (n = 215)

Contraceptive Use Status	Frequency	Percentage (%)
Currently using any method	123	57.2
Not using any method	92	42.8

Barrier methods and OCPs were the most commonly used, while long-acting reversible contraceptives such as IUCDs and injectables were underutilized. Table 4 shows the type of contraceptive method currently used.

Table 4: Type of Contraceptive Method Currently Used (n = 123)

Method Used	Frequency	Percentage (%)
Condom	45	36.6
Oral contraceptive pills	32	26.0
IUCD	21	17.1
Injectable contraceptives	8	6.5
Female sterilization	17	13.8

The most common barrier to contraceptive use was fear of side effects, followed by desire for conception and inadequate knowledge, highlighting the need for effective counselling. Table 5 shows the reasons for non-utilisation of contraception.

Table 5: Reasons for Non-Utilization of Contraception (n = 92)

Reason	Frequency	Percentage (%)
Fear of side effects	28	30.4
Desire for pregnancy	21	22.8
Lack of adequate knowledge	17	18.5
Opposition from husband/family	14	15.2
Inconvenience or access issues	12	13.1

A statistically significant association was observed between higher education and contraceptive utilization (p = 0.004), as well as between higher parity and contraceptive use (p = 0.002). Women with better education and completed family size were more likely to use contraception. Table 6 shows the association between selected variables and contraceptive utilisation.

Table 6: Association Between Selected Variables and Contraceptive Utilization (n = 215)

Variable		Using Contraception n (%)	Not Using n (%)	χ^2 value	p value
Education	≤Primary (n=94)	43 (45.7)	51 (54.3)	8.21	0.004
	≥Secondary (n=121)	80 (66.1)	41 (33.9)		
Parity	≤1 child (n=64)	26 (40.6)	38 (59.4)	9.14	0.002
	≥2 children (n=151)	97 (64.2)	54 (35.8)		

DISCUSSION

The present hospital-based cross-sectional study evaluated awareness and utilization of contraceptive methods among married women attending the gynaecology outpatient department of a tertiary care centre in Rajasthan. The findings demonstrate that although awareness of contraception was high, actual utilization remained suboptimal, reflecting a persistent gap between knowledge and practice.

In the present study, the majority of participants were in the 25–34 years age group, which corresponds to the most active reproductive period. Similar age distributions have been reported by Sharma et al. (2012) and Sinha et al. (2023), where women in their mid-reproductive years constituted the largest proportion of OPD attendees [12,13]. This age group represents an ideal target for spacing methods; however, the observed utilization pattern suggests underuse of effective spacing contraception.

Awareness of at least one contraceptive method was high among the study participants. Condoms, oral contraceptive pills, and female sterilization were the most commonly known methods. These findings are consistent with data from NFHS-5, which reported near-universal awareness of condoms and female sterilization among married women in India [5]. Similar levels of awareness have also been documented by Lamba et al. (2021) and Makade et al. (2012) in hospital-based studies from different parts of the country [14,15]. However, awareness of injectable contraceptives and emergency contraception was comparatively low, indicating limited dissemination of information regarding newer and reversible methods.

Despite high awareness, only 57.2% of women were currently using any contraceptive method. This awareness–utilization gap has been consistently reported in Indian literature. Prusty (2014) highlighted that knowledge alone does not ensure contraceptive adoption, as socio-cultural norms and service-related barriers play a major role [6]. Similarly, Sedgh et al. (2014) observed that fear of side effects and opposition from partners contribute significantly to unmet need for contraception, even among informed women [7].

Barrier methods were the most commonly used contraceptive method in the present study, followed by oral contraceptive pills. Comparable findings were reported by Karketta et al. (2017) and Maharjan et al. (2023), who noted that condoms are preferred due to ease of use, reversibility, and minimal perceived health risks [16,17]. In contrast, long-acting reversible contraceptives such as IUCDs and injectable contraceptives were underutilized, despite their higher efficacy and suitability for spacing. This underutilization reflects persistent misconceptions and inadequate counselling regarding these methods.

Fear of side effects was the most common reason for non-utilization of contraception in the present study. Similar observations have been made by Char et al. (2010) and Aly et al. (2022), who reported concerns regarding menstrual irregularities, infertility, and general health as major deterrents to contraceptive use [9,18]. Desire for pregnancy and lack of adequate knowledge were other important reasons, indicating unmet need for effective counselling and follow-up.

The present study demonstrated a statistically significant association between educational status and contraceptive utilization. Women with secondary education and above were significantly more likely to use contraception. This finding is consistent with studies by Stephenson and Hennink (2004) and Sinha et al. (2023), which emphasized that education enhances awareness, autonomy, and informed decision-making related to reproductive health [8,13].

Parity was also significantly associated with contraceptive utilization, with higher use among women having two or more children. Similar trends have been reported by Lamba et al. (2021) and Makade et al. (2012), suggesting that contraceptive acceptance increases after completion of desired family size [14,15]. This pattern reflects the continued dominance of limiting methods over spacing methods in India's family planning programme.

The findings of this study underscore the importance of strengthening family planning counselling services in tertiary care settings. Gynaecology OPDs offer repeated opportunities for interaction with women, yet the low uptake of spacing and

long-acting methods indicates missed opportunities. According to UNFPA (2023), rights-based counselling, addressing myths, and involving male partners are essential to improving contraceptive uptake and continuation [19].

Overall, the present study highlights that while awareness of contraception among married women is high, utilization remains inadequate. Addressing socio-cultural barriers, improving quality of counselling, and promoting informed choice—particularly for spacing methods—are crucial for enhancing reproductive health outcomes.

CONCLUSION

The present study highlights that while awareness of contraceptive methods among married women attending the gynaecology OPD at a tertiary care hospital in Rajasthan was high, actual utilization remained suboptimal. Condoms, oral contraceptive pills, and female sterilization were the most commonly known and used methods, whereas awareness and uptake of injectable contraceptives and emergency contraception were relatively low. A significant gap between awareness and practice was evident, primarily due to fear of side effects, desire for pregnancy, inadequate knowledge, and opposition from family members. Higher educational status and greater parity were significantly associated with contraceptive utilization, indicating the role of education and completed family size in influencing contraceptive behavior. The findings underscore the need for strengthening family planning counselling services in gynaecology OPDs, with a special focus on spacing methods, addressing misconceptions, and involving male partners. Targeted, rights-based counselling can help bridge the awareness–utilization gap and improve reproductive health outcomes.

DECLARATIONS

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REFERENCES

1. Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. The Lancet. 2012 Jul 14;380(9837):149-56.
2. World Health Organization. Family planning/contraception methods [Internet]. 3 Jan 2025. Available from: https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception
3. National Health Mission. Family Planning [Internet]. Government of India. Available from: https://nhm.gov.in/index1.php?lang=1&level=2&lid=222&sublinkid=821
4. Bongaarts J, Bruce J. The causes of unmet need for contraception and the social content of services. Studies in family planning. 1995 Mar 1:57-75.
5. International Institute for Population Sciences (IIPS) and MoHFW. National Family Health Survey (NFHS-5) 2019-21 [Internet]. Mumbai, India: IIPS/MoHFW.
6. Prusty RK. Use of contraceptives and unmet need for family planning among tribal women in India and selected hilly states. Journal of health, population, and nutrition. 2014 Jun;32(2):342.
7. Sedgh G, Hussain R. Reasons for contraceptive nonuse among women having unmet need for contraception in developing countries. Studies in family planning. 2014 Jun;45(2):151-69.
8. Stephenson R, Hennink M. Barriers to family planning service use among the urban poor in Pakistan. Asia-Pacific Population Journal. 2004 Jun;19(2):5-26.
9. Char A, Saavala M, Kulmala T. Influence of mothers-in-law on young couples 'family planning decisions in rural India. Reproductive health matters. 2010 Jan 1;18(35):154-62.
10. Office of the Registrar General & Census Commissioner, India. Sample Registration System Statistical Reports [Internet]. New Delhi, India: Government of India. Available from: https://censusindia.gov.in/census.website/data/SRSSTAT
11. Ministry of Health & Family Welfare, Government of India. India's Vision FP2030 [Internet]. New Delhi: MoHFW; July 2022 [cited 2026 Jan 18]. Available from: https://nhm.gov.in/images/pdf/programmes/family-planing/guidelines/FP2030_Vision-Document.pdf
12. Sharma V, Mohan U, Das V, Awasthi S. Socio demographic determinants and knowledge, attitude, practice: survey of family planning. Journal of family medicine and primary care. 2012 Jan 1;1(1):43-7.
13. Sinha S, Sharma SM, Sharma M, Bankawar V. Prevalence of contraceptive practices and its associated factors among women in an urban slum area of North India: An observational study. Indian Journal of Obstetrics and Gynecology Research. 2023 Aug 24;10(3):342-8.
14. Lamba I, Bhardwaj MK. Knowledge, attitude and practice of contraception among paramedical staff at tertiary care centre. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2021 May 1;10(5):1931-5.
15. Makade KG, Padhyegurjar M, Padhyegurjar SB, Kulkarni RN. Study of contraceptive use among married women in a slum in Mumbai. Natl J Community Med. 2012;3(1):40–43.
16. Kerketta S, Kumar A. Knowledge of family planning and current use of contraceptive methods among currently married women in Uttar Pradesh, India. Int J Community Med Public Health. 2017 Feb. 6;2(4):449-55. Available from: https://www.ijcmph.com/index.php/ijcmph/article/view/997

17. Maharjan M, Thapa B, Tuladhar H, et al. Contraception Use among Women Visiting Outpatient Department of Gynaecology in a Tertiary Care Centre: A Descriptive Cross-sectional Study. JNMA: Journal of the Nepal Medical Association. 2023 Feb 28;61(258):158.
18. Aly J, Choi L, Christy AY. The impact of coronavirus on reproduction: contraceptive access, pregnancy rates, pregnancy delay, and the role of vaccination. F&s Reviews. 2022 Jul 1;3(3):190-200.
19. United Nations Population Fund. 8 Billion Strong and Growing: How Population Change Matters [Internet]. UNFPA; 2023. Available from: https://www.unfpa.org/swp2023/8-billion-strong