

Women's Choices of Family Planning Methods and Their Determinants Among Reproductive-Age Women in Gurugram, Haryana: A Cross-Sectional Study.

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Abstract

Background: Family planning is a fundamental component of reproductive health and plays a crucial role in reducing maternal and child morbidity and mortality. Despite the availability of a wide range of contraceptive methods, the choice and utilization of these methods are influenced by various socio-demographic, cultural, and healthcare-related factors.

Objective: To assess the women's choices of family planning methods and to identify determinants influencing these choices among reproductive-age women in Gurugram, Haryana.

Methods: A quantitative, non-experimental descriptive cross-sectional study was conducted among 300 women aged 18–45 years attending outpatient departments of SGT Hospital, Gurugram. Participants were selected using purposive sampling. Data were collected using a structured questionnaire comprising socio-demographic variables, checklist of contraceptive choices, and determinants of family planning. Descriptive statistics (frequency, percentage) and inferential statistics (Chi-square test) were used for analysis.

Results: Out of 300 participants, 59.7% reported using family planning methods. Condoms were the most preferred method (63%), followed by calendar method (48%) and withdrawal (39.7%). Utilization of modern methods such as Cu-T (20.3%), oral contraceptives (17%), and sterilization (15.3%) was comparatively lower. Determinants such as education, income, cultural beliefs, accessibility of services, and partner support significantly influenced contraceptive choices. A statistically significant association was observed between socio-demographic variables and family planning choices ($p < 0.05$).

Conclusion: Although awareness and utilization of family planning methods are moderate, preference for traditional and short-term methods persists. Addressing socio-cultural barriers and strengthening counselling services can improve adoption of effective contraceptive methods....

Keywords: Family planning; Contraceptive methods; Determinants; Reproductive health; Women; Cross-sectional study..

INTRODUCTION

Family planning is a fundamental component of reproductive health that enables individuals and couples to determine the number, timing, and spacing of their children. It contributes significantly to reducing maternal and child morbidity and mortality, preventing unintended pregnancies, and promoting overall family well-being.^(1,2) Globally, it is considered one of the most cost-effective public health interventions, with evidence suggesting that effective contraceptive use can prevent a substantial proportion of maternal deaths by reducing high-risk and unintended pregnancies.⁽²⁾

India, currently the most populous country in the world, faces ongoing challenges related to rapid population growth and reproductive health needs.⁽³⁾ The increasing population places considerable strain on healthcare systems, economic resources, and social infrastructure. Recognizing this, India was the first country to launch a national family planning programme in 1952, aiming to achieve population stabilization and improve reproductive

health outcomes.⁽³⁾ Despite these long-standing initiatives, disparities in awareness, accessibility, and utilization of contraceptive methods persist across various regions and population groups.

Unintended pregnancies continue to be a major public health concern worldwide. Family planning services play a crucial role in reducing maternal morbidity and mortality by preventing unsafe abortions and closely spaced pregnancies.⁽²⁾ According to global estimates, unmet need for contraception remains high, particularly in developing countries, contributing significantly to poor reproductive health outcomes. Access to family planning not only improves health indicators but also promotes gender equality, women's empowerment, and sustainable development.⁽²⁾

Although awareness of contraceptive methods has improved over time, a substantial gap remains between knowledge and actual utilization. Studies have demonstrated that while many women are aware of at least one contraceptive method, comprehensive knowledge regarding correct use, benefits, and side effects is often inadequate.⁽⁷⁾ For instance, a study conducted in Mangaluru reported high awareness of methods such as condoms (90.9%) and sterilization (60.63%), yet actual usage of contraceptives was markedly low (10.1%), indicating a significant knowledge-practice gap.⁽⁷⁾ Similar findings have been reported in other parts of India, where awareness does not necessarily translate into consistent or effective use of contraceptive methods.⁽⁴⁾

Multiple socio-demographic and cultural factors influence contraceptive choice and utilization. Age, education, parity, income, and marital status play a significant role in shaping family planning behaviours.^(4,5) Additionally, cultural beliefs, gender norms, and partner influence are critical determinants. Studies have highlighted that partner's opinion and healthcare provider advice significantly affect contraceptive decision-making, emphasizing the importance of male involvement and effective counselling services.⁽⁷⁾ Fear of side effects, misconceptions, and lack of access to quality healthcare services further act as barriers to the adoption of modern contraceptive methods.^(3,6)

Furthermore, traditional methods such as withdrawal and calendar methods continue to be widely used despite their lower effectiveness, while modern methods such as intrauterine devices, oral contraceptives, and sterilization remain underutilized.⁽⁴⁾ This reflects persistent gaps in education, counselling, and service delivery. Unmet need for family planning remains particularly high among marginalized and underserved populations, where social, economic, and cultural barriers limit access to appropriate reproductive health services.⁽⁶⁾

Given the complex interplay of socio-cultural, economic, and healthcare-related factors influencing family planning practices, there is a need for context-specific research to better understand women's choices and determinants of contraceptive use. Such evidence is essential for designing targeted interventions aimed at improving awareness, accessibility, and effective utilization of family planning services, particularly in rapidly urbanizing settings in India.

Materials and Methods

A quantitative research approach was adopted for the present study to systematically assess women's choices of family planning methods and the determinants influencing these choices. The study employed a non-experimental descriptive cross-sectional research design, which allowed the investigator to collect data at a single point in time and analyse the existing patterns and associations without manipulating any variables.

The study was conducted in the outpatient departments of SGT Hospital, Gurugram, Haryana, a tertiary care teaching hospital that caters to a diverse population from both urban and rural areas. The study population comprised women of reproductive age between 18 and 45 years who attended the outpatient departments during the data collection period. A total sample of 300 women was selected for the study. The sample size was calculated using Cochran's formula, considering a confidence level of 95% and a margin of error of 5%. A non-probability purposive sampling technique was used to select participants who were willing to participate and available during the data collection period. Women aged 18–45 years who consented to participate were included in the study, while those who were unwilling to participate or unable to respond appropriately were excluded.

Data were collected using structured tools developed by the researcher after an extensive review of literature and consultation with subject experts. Three separate tools were used for data collection. The first tool was designed to collect socio-demographic information of the participants, including age, educational status, occupation, monthly family income, religion, number of children, type of family, and current use of family planning methods. The second tool consisted of a checklist containing 12 items to assess women's choices of family planning methods. This included both modern methods (such as condoms, intrauterine devices, oral contraceptive pills, and sterilization) and traditional methods (such as withdrawal and calendar method). The third tool comprised a checklist with 10 items to assess determinants influencing the use of family planning methods. These determinants included factors such as knowledge, cultural beliefs, accessibility of services, partner support, and previous experiences related to family planning. Prior to the main study, a pilot study was conducted on 10% of the sample size (30 participants) in a similar setting to assess the feasibility of the study and clarity of the tool. The findings of the pilot study confirmed that the tool was appropriate and feasible for use in the main study, and no major modifications were required.

Ethical approval for the study was obtained from the Institutional Ethics Committee of SGT University. Permission was also obtained from the concerned hospital authorities before data collection. Participants were informed about the purpose of the study, and written informed consent was obtained from each participant. Confidentiality and anonymity of the information were strictly maintained throughout the study.

The data collection process involved approaching eligible participants in the outpatient departments, explaining the purpose of the study, and administering the structured questionnaire. Participants were given adequate time (approximately 10–15 minutes) to complete the tool. The researcher was available to clarify any doubts during the process.

The collected data were organized, coded, and entered into a master sheet for analysis. Descriptive statistics, including frequency and percentage, were used to summarize socio-demographic variables, choices of family planning methods, and determinants. Inferential statistics, specifically the Chi-square test, were used to determine the association between socio-demographic variables and women's choices of family planning methods. A p-value of less than 0.05 was considered statistically significant.

Results

The present study was conducted among 300 women of reproductive age (18–45 years) attending the outpatient departments of SGT Hospital, Gurugram. The findings are presented based on socio-demographic characteristics, choices of family planning methods, determinants influencing these choices, and their association with selected variables.

The majority of the participants belonged to the age group of 24–29 years (35.3%), followed by 30–36 years (27.3%), indicating that most women were in their prime reproductive age. More than half of the participants (54.3%) had completed graduation or higher education, while 19.7% had senior secondary education. Regarding occupation, about one-third of the participants were housewives (33.7%), and a similar proportion (33%) were employed in private jobs, with the remaining being self-employed (18%) or working in government jobs (15.3%). In terms of monthly family income, 41% of participants reported an income of ₹30,000 and above, indicating a relatively stable economic background. The majority of participants were Hindu (66.3%), followed by Christians (17.3%), Sikhs (9.3%), and Muslims (7%). Regarding parity, 36.3% of participants had no children, while 24.7% had one child, 27.7% had two children, and only 11.3% had more than two children, suggesting a trend toward smaller family size. In relation to family structure, 45.3% belonged to joint families, 38% to nuclear families, and 16.7% to extended families. Notably, 59.7% of participants reported currently using some form of family planning method.

The distribution of participants according to their choices of family planning methods is depicted in **Table 1**. Condoms were the most commonly used method, reported by 63% of participants, indicating a preference for easily accessible and user-controlled methods. This was followed by the calendar method (48%) and withdrawal method (39.7%), reflecting a substantial reliance on traditional methods. Among modern contraceptive methods, the use of Cu-T (20.3%) and oral contraceptive pills (17%) was relatively moderate, while sterilization was reported by 15.3% of participants. Emergency contraceptives were used by 13% of women, whereas injectables were used by only 9%. The least utilized methods included diaphragms (4.3%), spermicides (5%), lactational amenorrhea method (5%), and Mirena (3%), suggesting low awareness or acceptance of these methods. Overall, the findings indicate a preference for short-term and non-invasive methods over long-term or permanent contraceptive options.

Table 1: Frequency distribution of subjects according to choices of family planning methods.

S.No.	Choice of family planning method	Yes (f, %)	No (f, %)
1.	Condoms	189, 63.0%	111, 37.0%
2.	Diaphragms	13, 4.3%	287, 95.7%
3.	Spermicides	15, 5.0%	285, 95.0%
4.	Oral Contraceptive	51, 17.0%	249, 83.0%
5.	Injectables	27, 9.0%	273, 91.0%
6.	Cu-T	61, 20.3%	239, 79.7%
7.	Mirena	9, 3.0%	291, 97.0%
8.	Emergency Contraceptives	39, 13.0%	261, 87.0%
9.	Sterilization	46, 15.3%	254, 84.7%
10.	Calendar Method	144, 48.0%	156, 52.0%
11.	Withdrawal	119, 39.7%	181, 60.3%
12.	LAM	15, 5.0%	285, 95.0%

As per the determinants influencing the choice of family planning methods (**Table 2**), women's choice of family planning methods is primarily influenced by **access to services, partner support, and level of awareness**. A majority of participants reported good accessibility of healthcare facilities (72%), availability of services (67%), affordability (64.7%), and quality counselling (62.7%), indicating that service-related factors play a key role in decision-making. Partner-related factors were also significant, with 68% reporting a positive partner attitude and 62% indicating partner involvement in decision-making. In terms of knowledge, 65.7% of women were aware of different family planning methods; however, only 43.3% had knowledge about their benefits and risks, suggesting incomplete understanding. Cultural beliefs (56%) and societal norms (52.7%) showed moderate influence, while religious and ethical considerations had comparatively lesser impact. Personal preferences, including method effectiveness (56%) and concerns about side effects (52%), also influenced choices. Overall, the results indicate that women's choice of family planning is mainly shaped by accessibility of services, partner support, and level of awareness, with cultural and personal factors contributing to a moderate extent.

Table 2: Determinants of family planning methods

S. No.	Determinant	Statement	Yes (f, %)	No (f, %)
1.	Health Status	Overall health is good.	137, 45.7	163, 54.3%
		Any history of reproductive health issues.	35, 11.7%	265, 88.3%
		Currently using any medication.	29, 9.7%	271, 90.3%
		Presence of any chronic illnesses (B.P., Sugar etc.)	193, 64.3%	107, 35.7%
2.	Knowledge and Awareness	Aware about different family planning methods.	197, 65.7%	103, 34.3%
		Knowledge about each method of family planning	193, 64.3%	107, 35.7%
		Knowledge about benefits and risks associated with each method of family planning.	130, 43.3%	170, 56.7%
3.	Cultural and Social Issues	Influence of cultural beliefs on family planning choices	168, 56.0%	132, 44.0%
		Role of family and community in decision making	134, 44.7%	166, 55.3%
		Peer influence and societal norms	158, 52.7%	142, 47.3%
4.	Access to family planning services	Availability of local family planning services	201, 67.0%	99, 33.0%
		Accessibility of healthcare facilities	216, 72.0%	84, 28.0%
		Cost of services and affordability	194, 64.7%	106, 35.3%
		Quality of counselling and support services	188, 62.7%	112, 37.3%
5.	Partner and Family Support	Partner's attitude towards family planning	204, 68.0%	96, 32.0%
		Involvement of partner in decision-making	186, 62.0%	114, 38.0%
		Support from extended family	140, 46.7%	160, 53.3%
6.	Religious and Ethical Considerations	Religious beliefs affect family planning	142, 47.3%	158, 52.7%
		Ethical concerns regarding certain family planning methods	130, 43.3%	170, 56.7%
7.		Preferences for medical versus natural methods	182, 60.7%	118, 39.3%

	Personal Preferences and Priorities	Importance of method effectiveness	168, 56.0%	132, 44.0%
		Consideration of side effects and health impacts	156, 52.0%	144, 48.0%
8.	Previous Experiences	Past use of family planning methods	125, 41.7%	175, 58.3%
		Experience with side effects or failures	157, 52.3%	143, 47.7%
		Satisfaction with previous family planning method used	162, 54.0%	138, 46.0%
9.	Government and Policy Influence	Aware about government policies and Programmes	170, 56.7%	130, 43.3%
		Influence of family planning campaigns	163, 54.3%	137, 45.7%
		Access to subsidized or free family planning services	152, 50.7%	148, 49.3%
10.	Psychological Factors	Fear or anxiety about using certain family planning methods	138, 46.0%	162, 54.0%
		Confidence in managing family planning independently	176, 58.7%	124, 41.3%
		Influence of past experiences and current choices	148, 49.3%	152, 50.7%

Several socio-demographic variables had a significant association with women's choice of family planning methods. Age was significantly associated with the use of diaphragm ($p=0.025$), oral pills ($p=0.036$), tubectomy ($p=0.001$), and withdrawal method ($p=0.001$). Educational status showed a strong association with multiple methods, including diaphragm ($p=0.012$), spermicides ($p=0.043$), oral pills ($p=0.004$), injectables ($p=0.024$), Cu-T ($p=0.002$), emergency contraception ($p=0.002$), tubectomy ($p=0.004$), calendar method ($p=0.001$), and withdrawal method ($p=0.019$). Occupation was significantly associated with diaphragm ($p=0.015$) and tubectomy ($p=0.001$). Monthly family income was significantly related to oral pills ($p=0.020$), injectables ($p=0.042$), emergency contraception ($p=0.028$), calendar method ($p=0.014$), and withdrawal method ($p=0.003$). Religion showed significant association with injectables ($p=0.011$), tubectomy ($p=0.002$), and calendar method ($p=0.001$). Number of children was significantly associated with Cu-T use ($p=0.001$). Type of family had significant association with oral pills ($p=0.043$), emergency contraception ($p=0.039$), tubectomy ($p=0.004$), and calendar method ($p=0.001$). Additionally, current use of family planning methods was significantly associated with condoms ($p=0.014$), spermicides ($p=0.044$), injectables ($p=0.001$), emergency contraception ($p=0.001$), and calendar method ($p=0.012$).

The results show that women's choice of family planning methods is significantly influenced by socio-demographic factors, particularly **education, age, and income**. Education emerged as the strongest determinant, indicating that better-educated women are more likely to use a wider range of contraceptive methods. Age influenced the use of permanent and traditional methods, reflecting changing needs across the reproductive life cycle. Economic status affected the use of several methods, highlighting the role of affordability. Additionally, factors such as occupation, type of family, religion, and number of children influenced specific method choices, while current use of contraception shaped future preferences. Overall, the findings suggest that family planning choices are determined by a combination of educational, economic, and socio-cultural factors.

Discussion:

The present study assessed women's choices of family planning methods and their determinants among reproductive-age women in Gurugram, Haryana. The findings revealed that 59.7% of women were using contraception, indicating moderate utilization. These findings are consistent with a mixed-method cross-sectional study conducted by Rathore et al. (2025) among 1,000 participants in urban and rural Chennai, which reported a contraceptive prevalence of 58.7%, with literacy and urban residence as key determinants.⁽⁸⁾ However, lower utilization has been observed in vulnerable populations, as a community-based cross-sectional study by Sreedevi et al. (2022) among 2,495 tribal women in Kerala reported only 26.4% contraceptive use, highlighting the role of socio-cultural and educational disparities.⁽⁹⁾ In contrast, higher prevalence has been reported in certain rural settings, where a community-based study by Osborn et al. (2021) in Coimbatore documented a contraceptive prevalence of 75%.⁽¹⁰⁾

In the present study, condoms were the most preferred method (63%), followed by traditional methods such as the calendar and withdrawal methods. Similar findings were observed in a community-based cross-sectional study conducted by Bangla et al. (2026) among 306 eligible couples in an urban resettlement colony of Delhi, which

reported condoms as the most commonly used contraceptive method with an overall prevalence of 58.5%.⁽¹¹⁾ The preference for barrier and traditional methods may be due to their ease of use, accessibility, and minimal medical intervention. However, the high reliance on traditional methods in the present study indicates continued dependence on less effective methods, which has also been reported by Rathore et al. (2025), where cultural beliefs and accessibility influenced the continued use of traditional contraceptive practices.⁽⁸⁾

The utilization of modern contraceptive methods such as IUCDs and oral contraceptive pills was comparatively low in the present study. This finding is supported by a scoping review conducted by Najan et al. (2025), which demonstrated that although IUCDs are effective, their acceptance remains low due to misconceptions and inadequate counselling.⁽¹²⁾ Similarly, a hospital-based cross-sectional study by Kahraman et al. (2012) among 4,022 women in Turkey found that the use of modern contraceptive methods is significantly influenced by education and awareness levels.⁽¹³⁾ These findings indicate that despite availability, modern methods are underutilized due to knowledge gaps and misconceptions.

The present study identified education, income, cultural beliefs, accessibility of services, and partner support as significant determinants of contraceptive choice. These findings are consistent with a community-based study by Osborn et al. (2021), which reported that socio-demographic factors such as education, socioeconomic status, and number of children significantly influence contraceptive use.⁽¹⁰⁾ Likewise, Rathore et al. (2025) highlighted literacy as a major predictor of contraceptive utilization.⁽⁸⁾ Higher educational levels likely improve awareness, enhance decision-making capacity, and promote acceptance of effective contraceptive methods.

Partner support was also found to be a crucial determinant in the present study. A mixed-method cohort study protocol by Roy et al. (2021) in urban and peri-urban North India highlighted that lack of spousal communication and cultural barriers significantly reduce contraceptive use, particularly in the postpartum period.⁽¹⁴⁾ This underscores the importance of male involvement and joint decision-making in improving family planning uptake. Cultural beliefs and misconceptions were important barriers identified in this study. Similar findings were reported by Sreedevi et al. (2022), where low contraceptive use among tribal women was attributed to poor knowledge and socio-cultural deprivation.⁽⁹⁾ Additionally, Rathore et al. (2025) reported that fear of side effects and religious beliefs significantly influence contraceptive choices. These findings emphasize the need for culturally sensitive education and counselling interventions.⁽⁸⁾

Another important finding of the present study is the gap between knowledge and practice, where awareness does not necessarily translate into utilization. This is supported by Sreedevi et al. (2022), who found that less than half of women had adequate knowledge despite ongoing programs.⁽⁹⁾ Furthermore, Kahraman et al. (2012) emphasized that improved counselling and education are essential to increase the adoption of effective contraceptive methods.⁽⁴⁾

The role of healthcare services and counselling is also evident. A scoping review by Najan et al. (2025) demonstrated that focused antenatal counselling significantly improves acceptance of contraceptive methods.⁽¹²⁾ However, systemic challenges can affect service utilization. A secondary data analysis by Khan et al. (2025) using HMIS data across India reported disruptions in contraceptive services during the COVID-19 pandemic, leading to unintended pregnancies and unmet needs.⁽¹⁵⁾ This highlights the importance of strengthening healthcare systems to ensure uninterrupted access to family planning services.

Overall, the findings of the present study are consistent with existing literature, demonstrating that contraceptive choice is influenced by a complex interplay of socio-demographic, cultural, and healthcare-related factors. Despite moderate utilization, the continued preference for traditional methods and underutilization of modern contraceptives indicate persistent gaps in awareness, counselling, and service accessibility. Addressing these barriers through targeted interventions, improved counselling strategies, and active male involvement is essential to enhance effective contraceptive use..

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