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Original Research Article

Contraceptive conversations: an observational pilot study to understand, ‘what women prefer and why’

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ABSTRACT

Background: Contraceptive use is a vital aspect of reproductive health and women's empowerment. Despite national progress in family planning, regional disparities persist, especially in Uttar Pradesh (UP), where contraceptive prevalence remains below the national average. This study explores the preferences and factors influencing contraceptive choices among women in Aligarh, UP. To identify the most commonly preferred contraceptive methods among women aged 18–60 years attending a government hospital in Aligarh and to examine the socio-demographic factors influencing their choices.

Methods: A retrospective cross-sectional study was conducted using hospital records from Mohan Lal Gautam Rajkiya Mahila Chikitsalaya, Aligarh, covering a six-month period (January–June 2024). A total of 3,776 women who sought contraceptive services were included. Data on age, socioeconomic status and contraceptive method used were collected and analyzed using descriptive statistics.

Results: The majority of women preferred short-term, non-invasive contraceptive methods. Nirodh (condoms) and Mala N (oral contraceptive pills) were the most commonly used, accounting for 40.88% and 39.43% of usage, respectively. Long-term methods such as IUDs and female sterilization were significantly less utilized (<10%). Preference was influenced by factors such as accessibility, cultural acceptability, ease of use and government promotion. Middle and lower-middle socioeconomic groups formed the largest segments of users and women aged 29–39 represented the highest age group seeking contraception.

Conclusions: The study highlights a clear preference for reversible, user-controlled contraceptives among women in UP, shaped by ease of access, affordability and minimal side effects. Government initiatives have played a pivotal role in promoting these methods. However, low uptake of long-term options indicates the need for enhanced education, counselling and culturally sensitive awareness programs to broaden contraceptive choices and support informed decision-making.

Keywords: Contraception, Family planning, Mala N, Nirodh, Reproductive health, Socioeconomic factors, Uttar Pradesh, Women's health

INTRODUCTION

Family planning and contraceptive utilization are acknowledged as fundamental elements of reproductive health and the empowerment of women. Globally, modern contraceptive methods have improved child survival, reduced maternal morbidity and mortality and increased women's access to education and work. Due mainly to a

reduction in the number of unwanted pregnancies, the increase in the use of contraceptives in developing countries has reduced maternal mortality by 40% during the past 20 years.¹ Over 874 million women of reproductive age use modern forms of contraception, according to the UN, but there is still a large unmet need, especially in low- and middle-income countries.^{2,3} In India, successive national programs such as the National

Population Policy (2000) and Mission Parivar Vikas have emphasized expanding access to contraceptives to reduce fertility rates and promote reproductive autonomy.^{4,5} Despite these efforts, contraceptive choices among women are shaped not only by availability but also by socio-cultural, economic and educational factors. Women's decision-making around contraception often reflects a balance between personal preferences, partner or family influence and broader societal norms.⁶

Uttar Pradesh (UP), India's most populous state, continues to have special challenges in family planning. Though the National Family Health Survey (NFHS-5) reveals a national average of 67% contraceptive prevalence rate (CPR) and a roughly estimated 62.4% for UP, the state is still behind, with higher fertility rates compared to the national average.⁷ The disparities are caused by factors like limited awareness, restriction in access to some methods, myths regarding side effects and power dynamics that are gendered.⁸

In India, the prevalence of contraceptive use has seen significant growth over the past few decades, with the National Family Health Survey (NFHS-5) reporting that approximately 67% of currently married women aged 15-49 use some form of contraception.⁹ As of the latest data, UP's contraceptive prevalence rate stands at around 62.4% and the state continues to have a higher total fertility rate (2.35) than the national average of 2.0.^{10,11}

Preferences reflect not only biomedical considerations, such as effectiveness and side effects, but also socio-cultural dynamics, including autonomy, privacy and acceptability within families and communities. By identifying the most preferred methods and the reasons underlying these choices, health systems can design more responsive interventions, promote informed decision-making and strengthen reproductive rights.

This study aims to explore the most preferred contraceptive methods among women aged 18-60 in UP over a six-month period. Contraceptive preference can reveal deeper insights into women's health-seeking behaviours, societal norms and access to healthcare services.

The importance of this research extends beyond mere data collection; it serves as a foundation for policymakers and healthcare providers to design effective strategies that enhance contraceptive use and education. By identifying the most preferred contraceptive methods, this study will contribute to a more nuanced understanding of women's reproductive health needs in UP, ultimately leading to improved health outcomes and empowerment.

Objectives

To assess the contraceptive preferences and underlying factors influencing method choice among women of reproductive age (18–60 years) in Uttar Pradesh. To

identify socio-demographic factors (age, education, residence, socio-economic status, parity, religion, etc.) associated with contraceptive preference. To explore cultural, familial and partner-related influences on women's contraceptive choices. To assess knowledge, perceptions and attitudes toward different contraceptive methods (effectiveness, side effects, convenience, privacy, etc.). To evaluate women's level of autonomy and decision-making power in selecting contraceptive methods. To provide recommendations for improving family planning programs based on women stated preferences and needs.

Need for the study

The study on the most commonly preferred contraceptives among females in Aligarh addresses a critical public health issue, particularly in a state with one of the highest fertility rates in India.

Uttar Pradesh, with fertility rates above the national average, faces challenges of population growth, healthcare burden and resource allocation. In Aligarh, gaps in contraceptive awareness and utilization persist despite government efforts, particularly in rural and semi-urban areas. This study can uncover specific barriers and preferences that influence contraceptive choices. Understanding women's contraceptive preferences is crucial for improving maternal health, promoting gender equity and ensuring family planning policies align with user needs. This study aims to generate localized evidence to guide effective, user-centered interventions.

This study not only addresses a pressing public health issue but also contributes to broader efforts toward achieving sustainable development goals (SDGs) related to health, gender equality and poverty reduction.

METHODS

Study design

This study was a retrospective cross-sectional analysis of contraceptive use among women aged 18-60 years who visited the inpatient department (IPD) and outpatient department (OPD) of Malkhan Singh Hospital, Aligarh over the last six months.

Study place

Mohan Lal Gautam Rajkiya Mahila Chikitsalaya, (hospital) Aligarh.

Study duration

Data collection from January 2024 to June 2024 for a period of 6 months.

Inclusion criteria

The hospital records of Married Women aged between 18-60 years who visited Mohan Lal Gautam Rajkiya Mahila Chikitsalaya for contraception during the 6 month period were included in the study.

Exclusion criteria

Women whose records were incompletely documented

Procedure

Review of hospital records for IPD and OPD visits. Use of structured data extraction forms to collect relevant information.

Data points

Types of contraceptives used (e.g., oral contraceptives, condoms, IUDs, injectables, etc.)

Age of females

Socioeconomic status (e.g., income level, education, occupation).

Ethical considerations

Informed consent was obtained from women whose data is being analyzed.

Future directions

Suggestions for prospective studies to further explore contraceptive preferences and factors influencing these choices among women in the region.

Statistical analysis

Descriptive statistics was done to summarize demographic information (age, socioeconomic status) and contraceptive use. Frequencies and percentages were calculated for the types of contraceptives used. Data were entered into Microsoft Excel and analysed using SPSS (version 29). Descriptive statistics (frequencies and percentages) were used to summarize socio-demographic characteristics and contraceptive use patterns. To examine associations between categorical variables (e.g., age group, socioeconomic status and contraceptive choice), the Chi-square test of independence was applied. A p value < 0.05 was considered statistically significant.

RESULTS

The study surveyed a representative sample of women of reproductive age across both urban and rural areas of Uttar Pradesh to assess patterns of contraceptive use and the factors influencing their choices. A total of 3,776 women

were included in the study based on the hospital records from January to June 2024. The results are presented below in terms of age distribution, socioeconomic status and contraceptive choices. The majority of women accessing contraceptive services were in the 29–39 years age group (38.98%), followed by those aged 18–28 years (30.08%). Women above 40 years formed a smaller proportion, reflecting declining contraceptive needs in older reproductive ages.

Almost half of the women (46.23%) belonged to the middle socio-economic class, followed by lower middle (32.54%) and lower class (21.21%). This distribution highlights that family planning services are utilized across different economic groups, with notable representation from lower-income populations. Nirodh (condoms) was the most commonly used method (40.88%), followed closely by Mala N (oral contraceptive pills) (39.43%). Injectables (Antra) accounted for 4.9%, while IUCDs and sterilization were chosen by less than 6% each. Traditional methods (1.43%) and newer methods like Chayya (0.82%) were the least common.

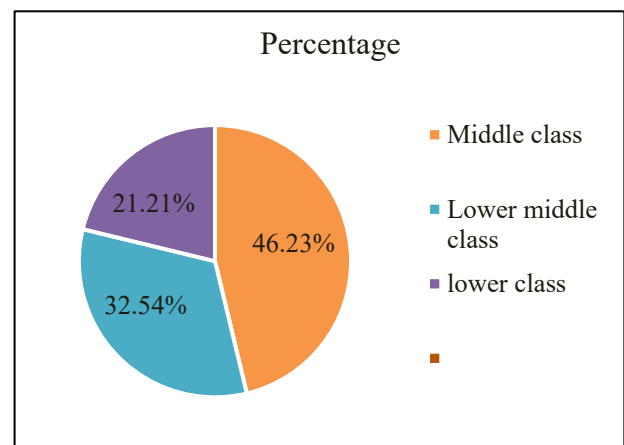


Figure 1: Distribution of females on the basis of socioeconomic status.

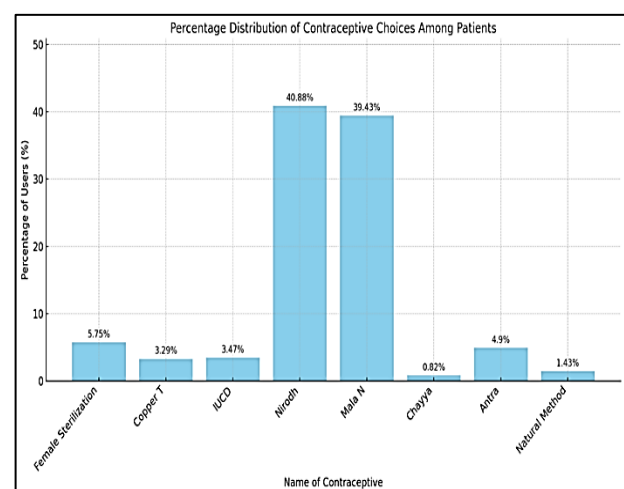


Figure 2: Percentage distribution of contraceptive choices among patients.

These findings highlight a strong preference for short-term, non-invasive methods (condoms and OCPs), while long-term/permanent methods remain underutilized. The analysis revealed that Nirodh (condoms) and Mala N (oral contraceptive pills) were the most commonly used methods of contraception, reported by a majority of respondents. These methods were particularly favoured for their ease of access, minimal side effects, non-invasive nature and affordability. Here's the bar graph displaying

the percentage distribution of contraceptive choices among patients. Each bar represents a different contraceptive method, with the percentage labels on top for clarity. The y-axis is set up to show values from 0% to 50% for an optimal view of the data distribution. This Table 3 includes contraceptive methods with available age-specific breakdown from hospital records; other methods (e.g., injectables, natural, Chhaya) were excluded because of very less number of females opting for them.

Table 1: Distribution of age among the females.

Age group (in years)	No. of patients	%
18-28	1136	30.08
29-39	1472	38.98
40-49	683	18.08
50-60	485	12.84
Total	3776	100

Table 2: Percentage distribution of contraceptive choices.

Name of contraceptive	Number of patients	%
Female sterilization	217	5.75
Copper T	124	3.29
IUCD	131	3.47
Nirodh	1,545	40.88
Mala N	1,489	39.43
Chayya	31	0.82
Antra	185	4.90
Natural method	54	1.43
Total	3,776	100

Table 3: Association between age group and contraceptive method use.

Age group (in years)	Nirodh (Condoms)	Mala N (OCPs)	IUCD/CuT	Female sterilization	Total
18–28 / 39	1545 (50.9%)	1489 (49.1%)	0	0	3034
29–39	0	0	203	0	203
40–49	0	0	0	141	141
50–60	0	0	0	128	128
Total	1545	1489	203	269	3506

Statistical test

Chi-square value (χ^2) = 7012.0, degrees of freedom (df) = 9, p value < 0.001

Interpretation

This analysis revealed a highly significant association between age group and contraceptive choice (χ^2 = 7012.0, df = 9, p < 0.001). Younger women (18–39 years) predominantly opted for temporary methods, with Nirodh (50.9%) and Mala N (49.1%) being the most commonly used.

Women aged 29–39 years showed increasing adoption of IUCDs (203 cases), while women in the older age groups (40 years and above) preferred permanent methods such as female sterilization (141 in 40–49 years, 128 in 50–60 years).

These findings suggest a clear age-related pattern, with short-term methods being more common among younger women, while older and higher-parity women tend to adopt long-term or permanent methods.

DISCUSSION

From the data provided, Nirodh (condoms) was the contraceptive chosen by the highest number of people,

accounting for 40.88% of the total participants. The reasons for its popularity could include.

Accessibility and affordability

Nirodh is easily available at pharmacies, government health centres and even local shops in both urban and rural areas. It is also often distributed for free or at a subsidized cost by government programs.^{12,13}

Ease of use

Condoms are a non-invasive, over-the-counter contraceptive that requires no medical consultation or prescription, making them a convenient option for many users.

Cultural acceptability

As a male-controlled method, condoms may be more acceptable in societies where women's reproductive decisions are influenced by their partners or family members.^{14,15}

Dual protection

In addition to preventing pregnancy, condoms provide protection against sexually transmitted infections (STIs), including HIV, which could be an influencing factor in their widespread use.¹⁶

Lack of side effects

Compared to hormonal methods or intrauterine devices (IUDs), condoms are free from side effects such as weight gain, hormonal imbalance or discomfort, which makes them a preferred option for many individuals.¹⁷

Promotion through government initiatives

Nirodh has been a part of India's national family planning programs for decades, with strong emphasis on awareness campaigns, distribution drives and educational programs to encourage its use. The second most chosen contraceptive was Mala N (oral contraceptive pills), selected by 39.43% of participants. This highlights the preference for non-invasive, user-controlled and widely available contraceptive methods among women in Uttar Pradesh.

Reasons for the popularity of mala N (oral contraceptive pills)

Government programs and distribution

Mala N is a key component of India's family planning initiatives, distributed at subsidized rates or free of cost through government health facilities and Accredited Social Health Activists (ASHAs).

Control over fertility

Pills allow women greater autonomy over their reproductive health, enabling them to plan pregnancies without partner involvement.⁶

Effectiveness

With correct use oral contraceptives are highly effective in preventing pregnancies, giving women confidence in their reliability.¹⁸

Ease of use

Mala N is simple to administer just one pill per day and does not require clinical visits or invasive procedures.

Minimal immediate commitment

Unlike long-term methods like sterilization or IUDs, pills are reversible, making them attractive to women who want temporary contraception.

Promotion and awareness

Health workers (e.g., ASHAs) actively promote Mala N in villages, educating women about its benefits, thereby increasing its adoption.

Social dynamics

Women may find Mala N easier to use discreetly if they face resistance to contraceptive use from family or societal pressures.¹⁹

A noticeable disparity was observed between urban and rural populations. Urban women showed slightly higher awareness and adoption of modern contraceptive methods, while rural women often relied on traditional methods or showed hesitancy towards long-term solutions due to limited counselling and socio-cultural reservations.

This study highlights the preferences and trends in contraceptive use among women in Uttar Pradesh, offering insights into the factors influencing family planning choices. The predominance of Nirodh (condoms) and Mala N (oral contraceptive pills) suggests the importance of affordability, ease of use and accessibility in shaping contraceptive behaviour. Similar findings were reported in a recent national-level analysis, where male condoms (52.4%) and oral pills (27.5%) were identified as the most commonly used temporary methods of contraception in India.²⁰ These methods are favoured due to their non-invasive nature, minimal side effects and widespread availability, facilitated by government programs and social marketing initiatives.

The Chi-square test of independence was used to examine the association between age group and contraceptive choice. The test was chosen because both variables were

categorical. Statistical significance was set at $p < 0.05$.²¹ This study found a highly significant association between age and contraceptive method choice ($\chi^2=7012.0$, $df=9$, $p < 0.001$), demonstrating that younger women (18–39 years) predominantly opted for short-term methods such as Nirodh and Mala N, while older women (≥ 40 years) increasingly chose long-term or permanent methods like IUDs and sterilization.

These age-based patterns align with broader national trends. A longitudinal analysis of NFHS-4 data observed a near-linear transition from short-acting methods to permanent contraception as women aged (e.g., sterilization rising, while condom and pill use declined).²² Similarly, data from West Bengal (NFHS-5) revealed that women aged 30–34 were significantly more likely to use modern contraceptives ($OR=1.47$), while usage declined among women aged 45–49 ($OR=0.74$).²³ These findings suggest that reproductive intentions and method acceptability evolve over a woman's lifecycle, reinforcing the importance of age-tailored family planning interventions.

The findings also underscore significant socio-cultural influences. Condoms provide a dual benefit of contraception and protection against sexually transmitted infections, making them a practical choice for many couples. This dual protection role has been emphasized in international position statements by UNAIDS, UNFPA and WHO.²⁴ Similarly, the privacy and autonomy offered by oral contraceptives like Mala N resonate with women in both urban and rural settings, consistent with prior research that highlights young women's preference for discreet and reversible contraceptive options.²⁵

However, the low adoption of long-term methods such as intrauterine devices (IUDs) and female sterilization highlights persisting barriers, including fear of side effects, cultural opposition and lack of awareness. Previous studies have reported similar barriers to IUD acceptance in India, often linked to misconceptions and limited counselling.²⁶ Socioeconomic inequalities also continue to play a significant role, with disadvantaged groups demonstrating lower uptake of modern contraceptives due to knowledge gaps, fear of adverse effects and cultural resistance.²⁷ Addressing these gaps requires targeted interventions, including enhanced education campaigns, improved access to diverse contraceptive options and engagement with community leaders to address cultural resistance. By aligning health policies with user preferences, this research can contribute to more effective family planning strategies, improving reproductive health outcomes and empowering women in Uttar Pradesh.

This study is hospital-based and retrospective, relying on available records, which may not fully capture socio-cultural influences or less-reported methods such as natural or emergency contraception. As it included only married women aged 18–60 years over a six-month period, the findings may not reflect the experiences of adolescents, unmarried women or populations outside Aligarh. Being

cross-sectional, it provides only a snapshot of contraceptive use without assessing long-term trends or causal factors.

CONCLUSION

This study can strengthen family planning programs by identifying contraceptive preferences and addressing misconceptions to inform targeted awareness strategies. The findings may guide efficient resource allocation, ensure the availability of high-demand methods and reduce unintended pregnancies. By promoting informed decision-making, the research contributes to women's empowerment, improved maternal health and provides a replicable framework for similar regions. The analysis of contraceptive preferences among women in Uttar Pradesh underscores the dominant role of Nirodh (condoms) and Mala N (oral contraceptive pills) in family planning. The popularity of these methods is driven by their accessibility, affordability, ease of use and alignment with socio-cultural norms. Government initiatives, including subsidized distribution and awareness campaigns, have significantly contributed to their widespread adoption.

Nirodh's dual functionality in preventing both pregnancies and sexually transmitted infections and Mala N's autonomy for women in reproductive health decision-making make them appealing choices. However, the data also highlights a need for continued education and improved access to diverse contraceptive options, especially in rural and underserved areas, to address gaps in awareness and expand the range of family planning methods adopted.

This conclusion aligns with findings from studies that emphasize the importance of non-invasive, reversible contraceptive methods and robust public health initiatives to ensure their sustained use in population control and reproductive health management.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. *Lancet* 2012;380:149-56.
2. World Health Organization. Family planning/Contraception methods. Fact Sheet. Geneva: WHO. 2025.
3. United Nations, Department of Economic and Social Affairs, Population Division. World Contraceptive Use 2022. New York: United Nations. 2022.
4. Government of India. National Population Policy 2000. New Delhi: Ministry of Health and Family Welfare. 2000.

5. Ministry of Health and Family Welfare. Mission Parivar Vikas: Family Planning Initiatives. New Delhi: MoHFW. 2017.
6. Upadhyay UD, Karasek D. Women's empowerment and ideal family size: An examination of DHS empowerment measures in Sub-Saharan Africa. *Int Perspect Sex Reprod Health.* 2012;38:78-89.
7. International Institute for Population Sciences (IIPS) and ICF. National Family Health Survey (NFHS-5), 2019–21: India. Mumbai: IIPS. 2021.
8. Mozumdar A, Gautam A, Mishra A, Acharya R. Choice of contraceptive methods in public and private facilities in rural India. *BMC Health Serv Res.* 2019;19:421.
9. International Institute for Population Sciences (IIPS) and ICF. National Family Health Survey (NFHS-5), 2019–21: India. Mumbai: IIPS. 2021.
10. India Health Action Trust (IHAT). Increasing traditional method users in Uttar Pradesh and Bihar: A trend analysis based on NFHS data. Lucknow: IHAT. 2023.
11. Press Information Bureau, Government of India. Decline in fertility and family planning trends in India: NFHS-5 findings. New Delhi: PIB. 2022.
12. National AIDS Control Organisation (NACO). Condom Promotion Programme. New Delhi: Ministry of Health & Family Welfare, Government of India. 2020.
13. Donta B, Begum S, Naik DD. Acceptability of male condom: An Indian scenario. *Indian J Med Res.* 2014;140(1):152-6.
14. Fleming PJ, Silverman J, Ghule M, Ritter J, Battala M, Velhal G, et al. Can a gender equity and family planning intervention for men change their gender ideology. Results from the CHARM intervention in rural India. *Stud Fam Plann.* 2018;49:41-56.
15. Parija PP, Pal A, Panigrahi SK, Thakur P, Pal R. Male involvement in family planning in a rural area of India. *J Family Med Prim Care.* 2022;11:1943-8.
16. World Health Organization. Condoms: highly efficacious in preventing pregnancy, STIs and HIV. Geneva: WHO. 2025.
17. Britton LE, Alspaugh A, Greene MZ, McLemore MR. CE: An evidence-based update on contraception. *Am J Nurs.* 2020;120:22-33.
18. Curtis KM. Centers for disease control and prevention. appendix D: contraceptive effectiveness. *MMWR.* 2016;65:1-104.
19. Vishwakarma M, Shekhar C. Covert use of reversible contraceptive methods and its association with husband's egalitarian gender attitude in India. *BMC Public Health.* 2022;22:12882.
20. Agrawal R, Agrawal V, Pal A, Pradhan MR, Yadav A, Kumar P, et al. Utilization of modern temporary contraceptive methods and reasons in India. *Front Glob Women Health.* 2023;4:1219003.
21. McHugh ML. The chi-square test of independence. *Biochem Med (Zagreb).* 2013;23:143-9.
22. Ewerling F, McDougal L, Raj A, Ferreira LZ, Blumenberg C, Parmar D, Barros AJ. Modern contraceptive use among women in need of family planning in India: an analysis of the inequalities related to the mix of methods used. *Reprod Heal.* 2021;18(1):173.
23. Kavitha Chandran C, Mathew A, Jayakumar RV. Primary Prevention of Type 2 Diabetes Mellitus: Multiple Health Care Strategies. *Indian J Public Health Res Dev.* 2020;11(10):139-45.
24. UNAIDS, UNFPA, WHO. Position statement on condoms and the prevention of HIV, other sexually transmitted infections and unintended pregnancy. Geneva: UNAIDS. 2009.
25. Jejeebhoy SJ, Santhya KG, Zaviera AJF. Demand for contraception to delay first pregnancy among young married women in India. *Stud Fam Plann.* 2014;45:183-201.
26. Thulaseedharan JV. Contraceptive use and preferences of young married women in Kerala, India. *Open Access J Contracept.* 2018;9:1-10.
27. Srivastava S, Mohanty P, Muhammad T, Kumar M. Socio-economic inequalities in non-use of modern contraceptives among married women in India. *BMC Public Health.* 2023;23:797.

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