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Original Research Article

ASSESSMENT OF KNOWLEDGE, ATTITUDE, AND PRACTICE TOWARDS FAMILY PLANNING METHODS AMONG WOMEN VISITING THE IMMUNIZATION OPD IN A TERTIARY CARE SETTING IN WESTERN MAHARASHTRA

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ABSTRACT

Background: Family planning is a key intervention for improving maternal and child health outcomes. Women attending immunization OPDs represent an important opportunity for integrated reproductive health counselling, yet limited data exist on their knowledge, attitudes, and practices (KAP) toward family planning in Western Maharashtra. This study aims to assess the knowledge, attitudes, and practices regarding family planning methods among women of reproductive age attending the immunization OPD in Western Maharashtra.

Materials and Methods: A cross-sectional hospital-based study was conducted among 200 women aged 18–49 years attending the immunization OPD of a tertiary care hospital in Western Maharashtra. Participants were selected using systematic random sampling. Data were collected using a pretested structured questionnaire and analysed using appropriate tests.

Results: Overall awareness of family planning methods was 98.0%, and comprehensive knowledge of at least four modern methods was present in 86.5% of participants. Positive attitudes were observed, with 92.5% comfortable discussing family planning with partners and 91.0% with healthcare workers. The contraceptive prevalence rate was 71.5%. Sterilization (35.0%), intrauterine devices (19.6%) and oral pills (16.8%) were commonly used. Women who received healthcare worker counselling were significantly more likely to use contraception compared to those who did not.

Conclusion: High levels of knowledge, favourable attitudes, and increased contraceptive use were observed among immunization OPD attendees. Healthcare worker counselling significantly reduced the knowledge–practice gap and enhanced contraceptive adoption. Integrating family planning services into immunization clinics may be an effective strategy to improve reproductive health outcomes.

Keywords: Contraceptive Prevalence, Counselling, Family Planning, Health Personnel.

INTRODUCTION

Family planning is an important intervention for improving maternal and child health, reducing maternal mortality, preventing unintended pregnancies, and promoting sustainable population growth. An Expert Committee (1971) of the WHO defined family planning as "a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country.[1]

India was the first country in the world to launch the National Family Planning Programme with the aim to reduce the birth rate and stabilize population.[2] Indian women's use of contraceptive methods is influenced by a number of factors, including partner-related, personal, interpersonal, service-related, and/or method-related aspects.[3]

Public health facilities offer a comprehensive range of contraceptive methods at no cost, despite the availability of these free services, unintended pregnancies among women who have completed their families remain prevalent, contributing to avoidable maternal health risks and placing additional strain on healthcare systems and national resources.[4] The National Family Health Survey-5 (2019-21) reported a contraceptive prevalence rate of 66.7% among currently married women aged 15-49 years, with significant inter-state variations and an unmet need for family planning of 9.4%.[5]

Western Maharashtra, despite being relatively developed, continues to face challenges in family planning uptake. Lack of knowledge about contraceptive methods and their sources of supply, along with socioeconomic factors, low educational status, and poor accessibility, are significant barriers in developing countries and play an important role in influencing their acceptance.[6] Family planning and selection of appropriate contraceptive methods are essential for improving reproductive health outcomes. It is the responsibility of healthcare providers to ensure dissemination of accurate information regarding the full range of available contraceptive options.[7]

Women attending immunization outpatient departments present a unique and often underutilized opportunity for comprehensive reproductive health interventions.[8,9] These women are already engaged with the healthcare system for their children's well-being, demonstrating health-seeking behaviour and regular contact with health facilities and healthcare workers. Understanding the KAP profile of this population and the effectiveness of healthcare worker-led counselling is essential for designing targeted, contextually appropriate interventions.

This study was therefore designed to assess the knowledge, attitudes, and practices regarding family planning methods among women of reproductive age attending the immunization OPD of a tertiary care hospital in Western Maharashtra, with particular emphasis on healthcare worker counselling as an important factor in contraceptive uptake.

MATERIALS AND METHODS

This cross-sectional, hospital-based observational study was conducted at the Immunization Outpatient Department of Government Medical College and Hospital, Miraj, a tertiary care hospital in Sangli district, Western Maharashtra, India. This hospital serves both urban and rural populations from Sangli and surrounding districts. The study was conducted over a Period of six month. (July-December 2025) following approval from the Institutional Ethics Committee [GMCM/IEC/C/194/2025 Dated: 28/07/25].

The study targets the women of reproductive age (18–49 years) who visit the immunization OPD for their children's routine immunization services during the study period.

The sample size was calculated using a rate of 63% awareness of family planning methods.[8] The estimated sample size was 184, which was rounded to 200. A systematic random sampling method was employed to select participants. Data collection focused on assessing the knowledge, attitude, and practices regarding family planning methods among women of reproductive age attending the immunization outpatient department of a tertiary care hospital, using pre tested structured questionnaire by direct interview of study participants after the consent was obtained. Women not willing to participate in the study, unmarried mothers, other medicolegal cases, mothers under 18 years were exclude. Data was collected and entered in MS Excel sheet and analysed.

RESULTS

Socio-demographic Characteristics: The mean age of participants was 27.2±4.0 years (range: 20-38 years). 119 (59.5%) were from rural area, while 81(40.5%) were from urban area. Regarding religion, 147(73.5%) were Hindu, 39(19.5%) were Muslim, 7 (3.5%) were Christian, and 7 (3.5%) belonged to other religions i.e. Jain, Buddhist, etc. 44.0% of the participants were graduates or above, while 3.5% were illiterate. 83.5% were homemakers. Joint family system was predominant in 59.5%. 42.0% had a monthly income between ₹10,001-20,000. 51.5% and 37.5% participants had 1 and 2 children respectively while 11% had 3 or more children. [Table 1]

Table 1: Socio-demographic Profile of Study Participants (N=200)

Characteristic	Category	Frequency	Percentage
Age Group	20-24 years	68	34.0
	25-29 years	85	42.5
	30-34 years	39	18.0
	35-38 years	8	4.0
Residence	Rural	119	59.5
	Urban	81	40.5
Religion	Hindu	147	73.5
	Muslim	39	19.5
	Christian	7	3.5

	Others	7	3.5
Education	Illiterate	7	3.5
	Class 1-5	11	5.5
	Class 6-8	21	10.5
	Class 9-10	40	20.0
	Class 11-12	33	16.5
	Graduate & above	88	44.0
Occupation	Working	33	16.5
	Non-working	167	83.5
Family Type	Nuclear	81	40.5
	Joint	119	59.5
Monthly Income	<₹5,000	18	9.0
	₹5,001-10,000	56	28.0
	₹10,001-20,000	84	42.0
	>₹20,000	42	21.0
No. of Living Children	1	103	51.5
	2	75	37.5
	3 or more	22	11.0

Knowledge Regarding Family Planning Methods: Overall, 196 (98.0%) participants had heard of family planning methods, while only 4 (2.0%) reported no awareness. Among those aware, the most common sources of information were healthcare workers (80.6%), followed by friends/relatives (67.3%), spouse (58.2%), TV/Radio (40.3%), and internet (26.5%). [Table 2]

Table 2: Sources of Family Planning Information (N=196)

Source of Information	Frequency	Percentage
Healthcare Workers*	158	80.6
Friends/Relatives	132	67.3
Spouse	114	58.2
TV/Radio	79	40.3
Internet	52	26.5

*Healthcare workers include ASHA workers, ANM, nurses, and doctors

Comprehensive knowledge of at least 4 modern methods of family planning was present in 86.5% of participant. Correct knowledge of emergency contraception timing was among 64.0% and awareness of male sterilization (vasectomy) was in 22.5%. [Table 3]

Table 3: Knowledge of Family Planning Methods (N=200)

Knowledge Indicator	Frequency (%)
Heard of family planning	196 (98.0)
Purpose understood #	
Limit children	145 (72.5)
Space children	162 (81.0)
Maternal health	175 (87.5)
Financial stability	115 (57.5)
Limit family size	98 (49.0)
Methods Known #	
Condoms	195 (97.5)
Oral Pills	192 (96.0)
Copper-T	186 (93.0)
Sterilization	163 (81.5)
Emergency contraception	85 (42.5)
Injectables	71 (35.5)
Natural methods	28 (14.0)
Comprehensive Knowledge Aware of ≥4 modern methods	173 (86.5)
Emergency contraception timing	
Within 72 hours (correct)	128 (64.0)
Within 24 hours	18 (9.0)
Don't know	54 (27.0)
All FP methods reversible?	
No (correct)	142(71.0)
Yes	35 (17.5)
Don't know	23 (11.5)
FP services free at govt. facilities?	
Yes (correct)	194 (97.0)
Don't know	6(3.0)
Heard of vasectomy	45 (22.5)

multiple responses

Attitudes Toward Family Planning: All participants (100%) agreed that both partners should discuss and decide on family planning methods. Notably, 92.5% were comfortable discussing with their partner and 91.0% with healthcare workers, indicating substantially improved communication patterns. Concerns about side effects decreased to 54.0%, with only 29.0% willing to discontinue due to side effects. Religious/cultural barriers were perceived by only 22.5% of participants. [Table 4]

Table 4: Attitudes Toward Family Planning (N=200)

Attitude Statement	Yes (%)	No (%)	Not Sure (%)
FP important for maternal-child health	189 (94.5)	2 (1.0)	9 (4.5)
Both partners should discuss and decide	200 (100.0)	0 (0.0)	0 (0.0)
Comfortable discussing with partner	185 (92.5)	15 (7.5)	-
Comfortable discussing with healthcare workers	182 (91.0)	18 (9.0)	-
FP methods have side effects	108 (54.0)	45 (22.5)	47 (23.5)
Would stop FPM due to side effects	58 (29.0)	85 (42.5)	57 (28.5)
Religious/cultural beliefs influence decision	45 (22.5)	110 (55.0)	45 (22.5)
Would recommend FPM to others	172 (86.0)	8 (4.0)	20 (10.0)

Family Planning Practices: Out of 200 participants, 143 (71.5%) were currently using a family planning method, while 57 (28.5%) were not. [Table 5]

Table 5: practice of Family Planning Methods (N=200)

Currently using FP method	**Method**	**Frequency (%)**
n=143 (71.5)	Sterilization (Tubectomy)	50 (35.0)
	Condoms	25 (17.5)
	Copper-T (IUD)	28 (19.6)
	Oral Contraceptive Pills	24 (16.8)
	Natural methods	10 (7.0)
	Injectables	6 (4.2)
Not currently using	**Barrier**	**Frequency (%)**
n =57 (28.5)	Fear of side effects	18(31.6)31.6)
	Want more children	14 (24.6)
	Lack of knowledge	5 (8.8)
	Religious beliefs	4 (7.0)
	Spouse opposition	3 (5.3)
	Lack of access	2 (3.5)
	No any barrier	11(19.3)

Among current users, the method distribution shows improved utilization of spacing methods (IUDs: 19.6%, pills: 16.8%) alongside permanent methods, 31.6% cited side effects, 24.6% reported wanting more children, and 8.8% mentioned lack of knowledge.

Side Effects Experience: Among 143 current users, 22 (15.4%) reported experiencing side effects, including weight gain (n=8), menstrual irregularities (n=6), abdominal pain (n=4), headache (n=2), and nausea (n=2). Of those experiencing side effects, 5 (22.7%) discontinued or changed their method. 84.6% of users experienced no significant side effect.

Role of Healthcare Worker Counselling: Among 200 participants, 158 (79.0%) had received family planning counselling from healthcare workers. Women who received healthcare worker counselling were significantly more likely to be using contraception (75.9% vs 57.5%), representing a 32.2% relative increase in adoption rates. Among the 158 women who received counselling, 132 (83.5%) expressed satisfaction with the quality of counselling provided by healthcare workers, while 26 (16.5%) were dissatisfied or neutral.

Table 6: Association Between Healthcare Worker Counselling and Current FP Use

Healthcare Worker Counselling	Using FP (%)	Not Using (%)	Total	χ^2 test
Yes	120 (75.9)	38 (24.1)	158	χ^2=5.41; df=2, p<0.05
No	23 (54.7)	19 (45.2)	42	

Table 7: Association Between Education and Current FP Use

Education Level	Using FP (%)	Not Using FP (%)	Total	χ^2 test
Illiterate/Primary (0-5)	8 (44.4)	10 (55.6)	18	χ^2=11.21; df=4, p<0.05
Middle (6-8)	14 (66.7)	7 (33.3)	21	
Secondary (9-10)	32 (80.0)	8 (20.0)	40	
Higher Secondary (11-12)	28 (84.8)	5 (15.2)	33	
Graduate & above	61 (69.3)	27 (30.7)	88	
Total	143	57	200	

DISCUSSION

The present study evaluated the knowledge, attitudes, and practices regarding family planning methods among women of reproductive age attending the immunization OPD of a tertiary care hospital and impact of healthcare worker counselling on contraception use.

In the present study, 98.0% of the women were aware of one or more methods of contraception which is in consistent with the earlier reports.[6,10,11] In this study 80.6 % women acquired knowledge about contraception from healthcare workers, followed by friends/relatives (67.3%), spouse (58.2%), TV/Radio (40.3%), and internet (26.5%) which is comparable to findings by Neravi A et al. from Karnataka, where most of the mothers 49.6% acquired knowledge about contraception from health professionals 44% from family and friends 12% from television and 12% from newspaper and 1.6% from radio.[12]

Out of 200 women, who were aware of contraception, 195 (97.5%) were aware of condoms, 192 (96.0%) were aware of oral pills, 186 (93.0%) were aware of IUDS, 163 (81.5%) were aware of tubectomy, 85 (42.5%) had heard of Emergency contraception, and 71(35.5%) knew about injectables. Similar results were found in the studies done by Melkani D et al., Kawale S et al. and Aseri G et al.[13-15]

This study among 200 women attending the immunization OPD revealed substantially reduced knowledge-practice gap, with 71.5% currently using contraceptive methods. These findings represent significant improvement over previously documented patterns in India and underscore the critical role of healthcare worker counselling in driving contraceptive adoption.[13]

Furthermore, the present study demonstrated a contraceptive prevalence rate of 71.5%, which is slightly higher than the 66.7% contraceptive prevalence reported in the National Family Health Survey-5 (NFHS-5) among currently married women aged 15–49 years in India.[5] This higher prevalence may be attributed to the study setting, as women attending immunization clinics already demonstrate health-seeking behaviour and regular interaction with healthcare providers.

All participants 100% agreed that both partners should discuss and decide on family planning methods. Notably, 92.5% were comfortable discussing with their partner and 91.0% with healthcare workers, indicating substantially improved communication patterns. Similar findings were reported by Kumar Y et al., who observed 85.4% had a positive attitude with regard to contraception among the married women of the urban population of Vellore town, South India.[16]

Education was also found to have a significant association with contraceptive use in the present study. Women with higher levels of education demonstrated greater utilization of family planning methods compared to those with lower educational attainment. This observation is consistent with the findings of Narain S et al.[17] Educational status plays a crucial role in shaping awareness, decision-making ability, and acceptance of contraceptive methods among married women. Educated women are more likely to access health information, communicate effectively with healthcare providers, and make informed reproductive health decisions.

Another important finding of this study was the positive impact of healthcare worker counselling on contraceptive adoption. Women who received counselling were significantly more likely to use contraception compared to those who did not. Similar results were reported by Nayak AK et al., who emphasized that structured counselling provided during post-natal period health visits significantly improves both knowledge and acceptance of family planning methods.[18] This highlights the importance of integrating family planning counselling into routine health services such as immunization clinics, antenatal care, and postnatal visits to reduce unmet need for contraception and improve maternal and child health outcomes.

CONCLUSION

The contraceptive prevalence rate of 71.5% among immunization OPD attendees represents meaningful progress toward national family planning goals. Comprehensive knowledge was present in 86.5% of participants and attitudinal barriers substantially diminished due to comfort in discussing with healthcare workers (91.0%), and willingness to discontinue due to side effects decreased to 29.0%. Healthcare worker engagement in family planning counselling reduces the knowledge-practice gap (26.5%) and increases contraceptive adoption.

The convergence of high awareness, positive attitudes, and improved practices achieved through healthcare worker engagement provides a model for scaling family planning services across public health facilities in India

By positioning healthcare workers as primary counsellors and leveraging the immunization platform for integrated reproductive health services, significant progress toward reducing unmet family planning needs and improving maternal-child health outcomes can be achieved.

REFERENCES

1. Park K. Park's Textbook of Preventive and Social Medicine. 28th ed. Jabalpur: Banarsidas Bhanot; 2025.
2. Devaru JS, Jabeen B, Mayanna P. A cross sectional study on knowledge, attitude and practice of family planning method usage among urban women of Dr. B. R. Ambedkar Medical College field practice area. Int J Community Med Public Health. 2020;7(3):981-6.
3. Reddy A. Contraceptive Method Preferences among Married Women of Age 18 to 30 Years Attending Tertiary Care Centre in Maharashtra. Sch Int J Obstet Gynec. 2024;7(6):250-3.
4. Kumar N, Das V, Agarwal A, Pandey A, Agrawal S. Pregnancy in women with previous two healthy children, associated factors, and acceptability of contraception among

these women: a questionnaire-based, cross-sectional KAP study in world's second most populated country advocating two-child norm. J Fam Med Prim Care. 2020;9(6):2899-905.
5. International Institute for Population Sciences (IIPS) and ICF. National Family Health Survey (NFHS-5), 2019-21: India. Mumbai: IIPS; 2021.
6. Singh M, Sinha R, Tyagi S. Awareness, attitude and practise of contraception among antenatal women in a tertiary care hospital in Uttarakhand. Int J Reprod Contracept Obstet Gynecol. 2023;12(8):2156-61.
7. Shukla M, Fonseca M, Deshmukh P. A study on contraceptive knowledge, attitudes and practices among women in the reproductive age group. Int J Reprod Contracept Obstet Gynecol. 2017;6(8):3560-7.
8. Lata G, Gupta L, Walia M. Knowledge, awareness, practice patterns and attitude towards family planning methods in a tertiary centre of North India. Int J Reprod Contracept Obstet Gynecol. 2024;13(4):978-82.
9. Maulik S, Dasgupta A. Knowledge, perceptions and practice of "family planning" methods in mothers visiting an immunisation clinic of rural Bengal, India. Indian J Med Spec. 2012;3(1):17-22.
10. Qazi M, Saqib N, Gupta S. Knowledge, attitude and practice of family planning among women of reproductive age group attending outpatient department in a tertiary centre of Northern India. Int J Reprod Contracept Obstet Gynecol. 2019;8(5):1775-80.
11. Gupta M, Jindal M, Sood A, Goraya S, Chawla S, Matreja P. Knowledge, awareness and practices (KAP) regarding contraception among females attending a tertiary care hospital, Himachal Pradesh. Int J Med Res Prof. 2017;3(4):70-4.
12. Neravi A, Udayashree V, Gundmi A. The knowledge, attitude, practice of contraception in breastfeeding mothers. Int J Reprod Contracept Obstet Gynecol. 2018;7(7):2862-6.
13. Melkani D, Jain N, Masand D. Study of knowledge, attitude and practices of contraception among the married women of reproductive age group in rural area. Int J Reprod Contracept Obstet Gynecol. 2023;12(10):3096-102.
14. Kawale S, Kaur S, Sharma A, Yadav H. Knowledge, attitude, practice of family planning methods among married women in reproductive age group attending obstetrics and gynecology OPD in Janana Hospital Bharatpur, Rajasthan. J Cardiovasc Dis Res. 2022;13(1):900-6.
15. Aseri G, Agrawal S. Knowledge, attitude, and practices about contraceptive in Western Rajasthan, India. Int J Reprod Contracept Obstet Gynecol. 2018;7(7):2786-91.
16. Kumar Y, Mukherjee P, Frankline A, Rahman SMF, David KV, Pricilla RA. Determination of prevalence, knowledge, attitude and practices of contraceptive use in an urban population in South India: a community based study. Int J Community Med Public Health. 2019;6(9):3871-6.
17. Narain S, Kiran A, Kujur M, Trivedi K, Kujur A. Modern contraceptive practices and associated predictors among married women: a cross-sectional study at tertiary care centre in Jharkhand. Int J Res Med Sci. 2023;11(8):2976-81.
18. Nayak AK, Jain MK. Family planning knowledge, attitude, and practice among postnatal women in a Medical College Hospital. Asian J Med Sci. 2022;13(9):147-50.