International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Ankita et al. Int J Reprod Contracept Obstet Gynecol. 2025 Apr;14(4):1107-1111
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20250717

Original Research Article

Barriers and motivators for postpartum intrauterine contraceptive devices uptake in a rural tertiary care hospital in Maharashtra

Ankita*, Deepak Kamat, V. B. Bangal

Department of Obstetrics and Gynecology, Loni, Ahmednagar, Maharashtra, India

Received: 11 February 2025
Revised: 26 February 2025
Accepted: 27 February 2025

***Correspondence:**
Dr. Ankita,
E-mail: Ankitasinha2207@gmail.com

ABSTRACT

Background: Postpartum family planning is crucial for improving maternal and neonatal health, especially in rural areas with limited healthcare access. Postpartum intrauterine contraceptive devices (PPIUCD) offer a safe, effective, and long-acting contraceptive solution. However, its uptake remains low due to various barriers, including lack of awareness, cultural beliefs, and fear of complications. This study aimed to explore the barriers and motivators influencing PPIUCD uptake among postnatal women in a rural tertiary care center in Maharashtra, India.
Methods: A cross-sectional study was conducted from October 2024 to November 2024 at Pravara institute of medical sciences, Loni, Maharashtra. Seven hundred forty postnatal women were randomly selected and interviewed. Statistical analysis was performed using SPSS version 21.
Results: The overall acceptance rate of PPIUCD was 37.9%. Acceptance was significantly higher among women with prior knowledge of PPIUCD and those with primary/secondary education. The main reasons for refusal were opting for other contraceptive methods (38.2%), fear of complications (28.7%), and husband's and relative's disapproval (21.6%). Women who attended three antenatal care visits were more likely to accept PPIUCD.
Conclusions: The study highlights the need for targeted interventions focusing on awareness, partner involvement, and culturally sensitive counselling to enhance PPIUCD acceptance in rural settings. Effective antenatal counselling can address misconceptions and promote informed decision-making.

Keywords: Postpartum intrauterine contraceptive device, Rural healthcare, Family planning, Antenatal counselling, Barriers, Motivators

INTRODUCTION

Postpartum family planning is essential for improving maternal and neonatal health, particularly in rural areas with limited healthcare access. PPIUCD offer a safe, effective, and long-acting contraceptive solution. Immediate postpartum insertion eliminates the need for additional healthcare visits, ensuring timely contraception in underserved settings.[1]

Despite its advantages, PPIUCD uptake remains low due to barriers such as lack of awareness, cultural and religious beliefs, fear of complications, and partner disapproval.[2] These challenges are more pronounced in rural areas, where sociocultural norms and limited educational opportunities further hinder acceptance. Misconceptions about the safety and efficacy of PPIUCDs also deter many women.[3]

Motivators for PPIUCD uptake include comprehensive antenatal counselling, positive peer experiences, and the convenience of immediate postpartum insertion. Women who receive counselling during antenatal care are more likely to understand the benefits of PPIUCD and make informed decisions. Partner involvement and support are also crucial in increasing acceptance rates.[4]

This study explores the barriers and motivators influencing PPIUCD uptake among postnatal women at a rural tertiary care center in Maharashtra. It aims to identify actionable insights to improve family planning services and address gaps in education and counselling.

METHODS

Study type

It was a cross-sectional study.

Study place

Study conducted at Pravara institute of medical sciences, Loni, Maharashtra.

Study period

Study conducted from October 2024 to November 2024.

Selection criteria

The inclusion criteria for this study encompassed postnatal women who had recently given birth at Pravara institute of medical sciences, Loni, Maharashtra, and were eligible for PPIUCD insertion as per the world health organization's medical eligibility criteria. Women who were willing to participate and provide informed consent were included in the study. Exclusion criteria involved women who did not meet WHO medical eligibility for IUCD insertion and those unwilling to participate. Such selection criteria help maintain the validity of findings by focusing on eligible postpartum women while excluding those with potential contraindications or biases related to non-consent.

Sample size

Seven hundred forty women (740) were randomly selected and interviewed.

Procedure

The PPIUCD is typically inserted within 10 minutes after placenta delivery or within 48 hours postpartum, though it can be done up to 6 weeks post-delivery. The woman is positioned comfortably, and a sterile environment is maintained while the healthcare provider cleans the cervix and vagina. A speculum is used to visualize the cervix, and the IUD is inserted into the uterus. After insertion, the provider checks for proper placement, ensuring the strings are visible at the cervix. The woman is monitored briefly for any complications, the strings are trimmed, and she is instructed on how to check them at home. A follow-up appointment is scheduled after 6 weeks to confirm proper placement and address any side effects.

Institutional ethical clearance was taken prior to start of study.

Data analysis

All data was collected and compiled in Microsoft excel. Mean and SD was calculated for quantitative data and proportion and percentage for qualitative data. Statistical analysis was done using SPSS version 21.

RESULTS

Table 1 shows age distribution and majority (29.6%) cases were in age group of 21 to 25 years.

Table 1: Age of respondents.

Age groups (in years)	Percentage (%)
≤20	17.7
21-25	29.6
26-30	28.6
31-35	18.7
≥36	5.4

Most women have secondary education (65%), followed by primary education (15%), college education (12%), and 8% have no formal education.

Table 2: Education status of women.

Education status	Percentage (%)
No formal education	08
Primary	15
Secondary	65
College	12

Majority of women are multipara 2 (54%), followed by primipara (30%), multipara 3 (14%), and multipara 4 (2%).

Table 3: Parity.

Parity	Percentage (%)
Primipara	30
Multipara 2	54
Multipara 3	14
Multipara 4	2

Majority females did 1 antenatal visit (48%), followed by 2 visits (40%), no ANC (5%), and 3 visits (7%).

Table 4: Antenatal visits.

Antenatal visits	Percentage (%)
No ANC	05
1	48
2	40
3	07

Only 28% females were aware of PPIUCD.

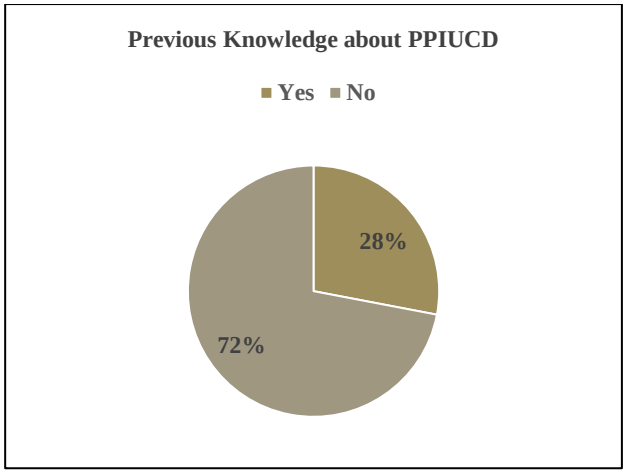

Figure 1: Previous knowledge about PPIUCD.

Table 5: Reasons for acceptance of PPIUCD.

Reasons for acceptance	Percentage (%)
Long term contraception	35
No hormonal side effects	28
A.N.M/ ASHA recommended it	21
No interference with breast feeding	9
Heard about it from relatives	5
No repetitive visits to hospital	2

Long-term contraception (35%), no hormonal side effects (28%), recommendation by A.N.M/ASHA (21%), and no interference with breastfeeding (9%).

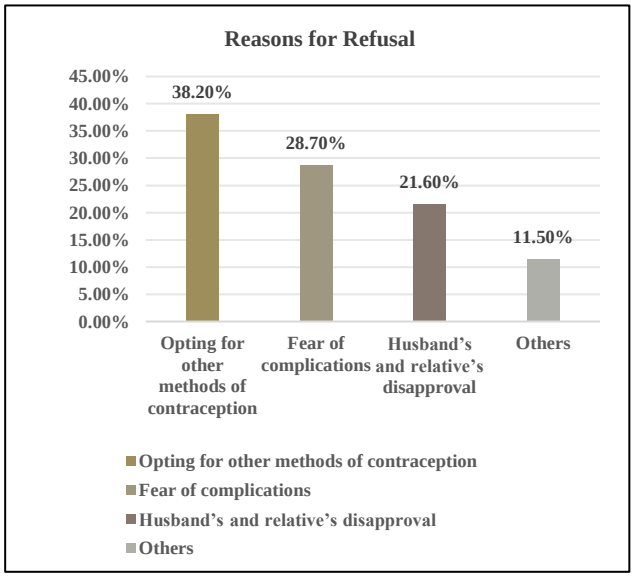

Figure 2: Reasons for refusal.

Main reasons for refusal included opting for other methods of contraception (38.2%), fear of complications (28.7%), disapproval from husbands/relatives (21.6%), and other reasons (11.5%).

Table 6: Reasons regarding PPIUCD related complications.

Complication	Percentage (%)
Painful insertion of PPIUCD	45
Irregular bleeding	52.6
Impact future fertility	41.6

Most common complication were painful insertion (45%), irregular bleeding (52.6%), and concerns about the impact on future fertility (41.6%).

DISCUSSION

Most respondents (29.6%) were in the 21-25 age group, with the majority (65%) having secondary education. Study by Pradhan et al showed that majority cases were in age group of 25 to 30 years and majority 44.7% had education till primary.[8] Study by Pleah et al showed that women who had completed secondary education were more likely to accept PPIUCD usage than those who had no formal education.[6] There was a higher inclination of PPIUCD use in women who had attended three antenatal care visits than those who did not attend the antenatal care visits for the current pregnancy.[6] Kirigia et al showed that majority 68.9% were in age group of 20-30 years.[11] Similarly Kumar et al also showed that more than half of the women had one child, and nearly a quarter had no formal education.[15]

In terms of childbirth history, 54% were multipara 2, and 48% of women had one antenatal visit. Kirigia et al showed that 76.3% were multipara, and Divakar et al found 50% multipara.[11,13] Agarwal et al found that PPIUCD insertion was significantly high in women receiving expert counselling during antenatal period.[14]

Only 28% were aware of PPIUCD, with long-term contraception (35%) and no hormonal side effects (28%) being the most common reasons for its acceptance. Acceptance was significantly higher among women with prior knowledge of PPIUCD and those with primary/secondary education.

Refusal was attributed primarily to opting for other methods of contraception (38.2%), fear of complications (28.7%), and husband's and relative's disapproval (21.6%). These reasons are consistent with findings from previous research by Huffling et al which also identified fears about side effects, cultural beliefs, and spousal influence as significant barriers to the use of postpartum contraception.[5] Study by Pradhan et al showed that primary reasons for refusal of PPIUCD were disapproval from family members (42.6%), fear of complications (20.2%), and a preference for using other contraceptive methods (22%).[8] Additionally, religious beliefs played a role in 3.1% of cases, while 1.2% of women cited interference with sexual intercourse as a concern, and 11.5% did not provide any specific reason for refusal. However, Sanskriti et al discovered that the primary

reasons for refusal in multipara (65%) were a strong preference for a son and the belief that PPIUCD insertion could negatively impact their chances of future conception.[9] Agarwal et al found most common reasons for refusing PPIUCD were family disapproval, lack of knowledge about the device, and a preference for other contraceptive methods.[14]

Common complications linked to PPIUCD included painful insertion (45%), irregular bleeding (52.6%), and concerns about future fertility (41.6%). Study by Pradhan et al showed that 33% females had complications, hence they preferred for some other method of contraception.[8] Singh et al also found complication among 67%, most common being pain in abdomen.[10] Global studies suggest that the low acceptance of PPIUCD is often attributed to service providers' negative perceptions of the device, inadequate counseling skills, insufficient technical expertise in its insertion, and logistical constraints in health facilities. Additionally, cultural beliefs and the perspectives of women and their families play a significant role in the reluctance to use the device, rather than any inherent issues with the device itself.[11]

Kumar et al also concluded that women who choose PPIUCD demonstrate a high level of satisfaction with this contraceptive method.[15]

CONCLUSION

The current acceptance rate for PPIUCD is relatively low, primarily due to factors such as limited education among couples, male partner refusal, religious beliefs, and fears or concerns regarding potential complications associated with the insertion procedure. However, higher inclination towards PPIUCD insertion among women who received counselling during antenatal care visits underscores the critical role of patient and partner education. Effective counselling can address misconceptions, alleviate fears, and highlight the benefits of PPIUCDs, thereby promoting informed decision-making and improved family planning outcomes.

Limitations

The study's cross-sectional nature only captures a snapshot at one point in time, which limits understanding of long-term trends or changes in attitudes and behaviors over time along with that smaller sample size limited the study to further extend.

ACKNOWLEDGMENTS

Authors would like to thank to Pravara institute of medical sciences, Loni, and all participants.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. WHO. Programming Strategies for Postpartum Family Planning; World Health Organization. Geneva: WHO Libr Cat Data. 2013. Available at: https://iris.who.int/bitstream/handle/10665//93680/9789241506496_eng.pdf?sequence=1. Accessed on 3 November 2024.
2. Hounton S, William W, Aluisio JDB, Ian A. Patterns and trends of postpartum family planning in Ethiopia, Malawi, and Nigeria: evidence of missed opportunities for integration. Glob Heal Action. 2015;8:29738.
3. Jhpiego Corporation. Postpartum Intrauterine Contraceptive Device (PPIUD) Services; A Reference Manual for Providers. Balt Maryl 21231-3492, USA. ACCESS Family Planning Initiative, USIAD. 2010.
4. Kanhere AV, Pateriya P, Jain M. Acceptability and feasibility of immediate postpartum IUCD insertion in a tertiary care Centre in Central India. Int J Reprod Contracept Obstet Gynecol. 2015;4(1):179-84.
5. Huffling K, Brubaker L, Nash-Mercado A, McKaing C. An Annotated Bibliography of Postpartum Family Planning Literature. ACCESS Fam Planning Initiative. 2008.
6. Pleah T, Yolande H, Suzanne A, Abdoulaye D, Blami D, Rachel W, et al. Increasing use of postpartum family planning and the postpartum IUD: early experiences in west and Central Africa. Glob Heal Sci Pract. 2016;4(2):140-52.
7. Nelson AL. Prenatal contraceptive counseling and method provision after childbirth. Doverress Open Access J Contracept. 2015;6:53-3.
8. Pradhan S, Kshatri JS, Sen R, Behera AA, Tripathy RM. Determinants of uptake of post-partum intra-uterine contraceptive device among women delivering in a tertiary hospital, Odisha, India. Int J Reprod Contracept Obstet Gynecol. 2017;6:2017-20.
9. Sanskriti P, Amita T, Pratima M, Rupali D, Jyotsna S, Anita K. Exploring reasons behind Low acceptance for PPIUCD in postnatal women. New Indian J Surg. 2011;2(4):246.
10. Singh BS, Srivastava D, Kaur J. Facilitators and barriers in acceptance of postpartum intrauterine contraceptive devices in Bihar. Indian J Obstetr Gynecol Res. 2025;25(1):506-14.
11. Kirigia C, Gitonga L, Muraya M. Barriers to Immediate Post-Partum Intra-Uterine Contraceptive Device Uptake among Mothers Delivering at Meru Hospital. Open J Obstetr Gynecol. 2019;9:312-25.
12. Sinha T. Barriers and Challenges in the Acceptance and Continuation of Postpartum Intrauterine Contraceptive Device. Contemporary Challenges in Postnatal Care. IntechOpen. 2024.
13. Divakar H, Bhardwaj A, Purandare CN, Sequeira T, Sanghvi P. Critical Factors Influencing the Acceptability of Post-placental Insertion of Intrauterine Contraceptive Device: A Study in Six Public/Private Institutes in India. J Obstet Gynaecol India. 2019;69(4):344-9.

14. Agarwal N, Gupta M, Sharma A, Arora R. Antenatal counselling as a tool to increase acceptability of postpartum intrauterine contraceptive device insertion in a tertiary care hospital. Int J Reprod Contracep Obstet Gynaecol. 2015;4(2):1137-41.
15. Kumar S, Sethi R, Balasubramaniam S, Charurat E, Lalchandani K, Semba R, et al. Women's experience with postpartum intrauterine contraceptive device use in India. Reprod Health. 2014;11:32.

Cite this article as: Ankita, Kamat D, Bangal VB. Barriers and motivators for postpartum intrauterine contraceptive devices uptake in a rural tertiary care hospital in Maharashtra. Int J Reprod Contracept Obstet Gynecol 2025;14:1107-11.