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Effectiveness of structured counselling in enhancing postpartum contraceptive uptake and method selection

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Abstract

Background: Postpartum family planning (PPFP) is essential for preventing unintended and closely spaced pregnancies, which can increase maternal and child morbidity and mortality. Despite high awareness of contraception in India, uptake of effective methods remains suboptimal, particularly in rural areas due to socio-cultural barriers and misinformation.

Aim: To evaluate the impact of structured contraceptive counselling on postpartum women's selection and uptake in a rural tertiary care setting.

Methods: This cross-sectional interventional study was conducted at Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh, from August 2023 to April 2024. A total of 303 women aged 18–40 years in antenatal (third trimester), intrapartum, or early postpartum (<8 weeks) periods were enrolled. Pre-counselling questionnaires assessed awareness, current contraceptive practices, and myths. Structured counselling sessions (~20 minutes) followed WHO Medical Eligibility Criteria guidelines and used visual aids and educational materials. Post-counselling choices were recorded, with follow-up after one month to assess initiation and continuation.

Results: Mean participant age was 26.9 ± 4.1 years; 93.4% were literate, and 56.8% were primiparous. Before counselling, 85.15% were aware of family planning, but only 76.23% used contraception, with 21.11% relying on natural methods. Myths were reported by 50.49%, most commonly fear of permanent infertility (19.80%). After counselling, contraceptive uptake increased to 95.04%, with a marked shift toward long-acting reversible contraceptives—Copper T use rose from 11.22% to 39.58% and DMPA from 0.33% to 18.75%, while natural method uses decreased by 39.06%. At one-month follow-up, 60.76% had initiated their chosen method; discontinuation (21.52%) was mainly due to time constraints and non-availability in government supply.

Conclusion: Structured contraceptive counselling significantly improves postpartum contraceptive uptake, shifts preferences toward effective methods, and reduces reliance on natural methods. Integrating such counselling into routine antenatal, intrapartum, and immediate postpartum care—especially in rural areas—can enhance informed choice, address myths, and contribute to better maternal and child health outcomes.

Keywords: Postpartum family planning, structured counselling, contraceptive uptake, long-acting reversible contraception, rural health

Introduction

Postpartum family planning (PPFP) refers to the prevention of unintended and closely spaced pregnancies during the first 12 months following childbirth [1]. The World Health Organization (WHO) recommends an interpregnancy interval of at least 24 months to reduce maternal and child morbidity and mortality [2]. Short birth intervals are associated with increased risks of preterm birth, low birth weight, perinatal mortality, and maternal complications [3, 4].

Globally, about 95% of women in the first-year postpartum wish to avoid pregnancy within the next two years, yet nearly 70% are not using contraception [5]. In India, data from the National Family Health Survey (NFHS-5) show that although contraceptive awareness is high, the use of modern methods remains suboptimal, with many women relying on less effective traditional methods [6]. This gap is more pronounced in rural areas, where socio-cultural barriers, myths, and lack of access to trained counsellors hinder adoption of effective contraceptive methods [7, 8].

Structured contraceptive counselling is a client-centred, evidence-based approach that systematically addresses a woman's contraceptive needs, dispels myths, and supports informed choice [9]. Studies have shown that structured counselling, particularly when initiated during antenatal or immediate postpartum periods, significantly improves the uptake and continuation of long-acting reversible contraceptives (LARCs) such as copper intrauterine devices (IUCDs) and injectable contraceptives [10, 11, 12].

Despite these benefits, there remains limited research from rural Indian settings evaluating the direct effect of structured counselling on postpartum contraceptive method selection and uptake. This study aims to assess the effectiveness of structured counselling in enhancing informed choice, shifting preferences towards more effective methods, and addressing barriers to contraceptive use among postpartum women in a rural tertiary care setting.

Materials and Methods

This cross-sectional interventional study was conducted in the Department of Obstetrics and Gynaecology at Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh, from August 2023 to April 2024. A total of 303 women aged 18–40 years were enrolled after obtaining informed written consent. Participants were recruited from three groups: antenatal (third trimester), intrapartum, and postpartum women attending postnatal check-ups or visiting for infant immunization within 8 weeks of delivery. Women who had undergone permanent sterilization, were more than 8 weeks postpartum, above 40 years of age, or unwilling to participate were excluded.

Data collection was carried out in two stages. In the pre-counselling phase, a structured questionnaire was used to assess baseline awareness, previous contraceptive use, myths, and perceived barriers. This was followed by structured contraceptive counselling based on WHO's Medical Eligibility Criteria for Contraceptive Use [9]. Counselling sessions lasted approximately 20 minutes and were conducted either in the outpatient counselling room or at the bedside for admitted women. The process included greeting and rapport building, assessment of needs, tailored education on available contraceptive methods, facilitation of informed decision-making, and arrangement for follow-up. Visual aids, contraceptive device models, and printed information leaflets were used to improve comprehension.

The chosen contraceptive method was documented on the antenatal card for pregnant women and on discharge summaries for postpartum women. Methods requiring delayed initiation, such as interval IUCD or injectable DMPA, were scheduled for commencement at 6–7 weeks postpartum. Follow-up was conducted one month after initiation, either in person or telephonically, to record initiation status, continuation, and reasons for discontinuation.

Data were entered into a predesigned proforma and analysed using SPSS version 26.0 (IBM Corp., Armonk, NY, USA). Categorical variables were expressed as frequencies and percentages, while continuous variables were presented as mean ± standard deviation. Associations were tested using the Chi-square test or Fisher's exact test for categorical data, and the unpaired t-test or Mann–Whitney U test for continuous data, as appropriate. A p-value of <0.05 was considered statistically significant. Ethical approval for the study was obtained from the Institutional Ethics Committee before commencement.

Results

Demographic Characteristics of Participants

The study included 303 women, with a mean age of 26.9 ± 4.1 years. Over half (56.11%) were aged 24–29 years, followed by 21.12% aged 30–35 years, and 19.14% aged 18–23 years. Most participants were literate (93.40%), with high school education being the most common level attained. The majority (57.76%) were unemployed. Hindus formed the largest religious group (79.21%), followed by Sikhs (12.87%) and Muslims (6.27%). More than half (56.77%) were primiparous, while 29.04% and 14.19% had two and three children, respectively.

Awareness and Myths Before Counselling

Before counselling, 85.15% of participants reported awareness of family planning. Barrier methods were the most widely known (80.20%), followed by OCPs/POPs (65.68%), DMPA (49.83%), and Copper T (46.86%). Awareness of lactational amenorrhoea was lower (21.78%), and implants were least known (1.98%). Half of the women (50.49%) held at least one myth about contraception, the most common being fear of permanent infertility (19.80%). Other concerns included perceived weakness (9.57%), menstrual irregularity (7.92%), mood swings (6.93%), and religious limitations (6.27%).

Contraceptive use Before Counselling

Prior to counselling, 76.23% of women were using some form of contraception, while 23.76% were not using any method. Natural methods were used by 21.11%, with withdrawal (12.21%) more common than the calendar method (8.90%). Among temporary methods, barrier use was highest (31.68%), followed by OCPs/POPs (11.88%) and Copper T (11.22%). DMPA use was rare (0.33%), and no participants were using implants.

Contraceptive uptake before and after counselling

Post-counselling, the proportion of women adopting contraception rose to 95.04%. Use of natural methods declined by 39.06%, primarily due to reduced reliance on the calendar method (66.6% reduction). Copper T use more than tripled, rising from 11.22% to 39.58%. DMPA use increased from 0.33% to 18.75%, while OCP/POP uptake showed a modest rise from 11.88% to 13.89%. Barrier method use dropped markedly from 31.68% to 11.11%. Additionally, implants, previously unused, were chosen by 3.12% of participants after counselling.

Continuation and discontinuation of chosen method

At one-month follow-up, 60.76% of women had initiated their chosen method, 17.70% had not started, and 21.52% had discontinued. The leading cause of discontinuation was lack of time to visit the hospital (8.33%), followed by non-availability of the method in government supply (7.92%). Permanent sterilisation after initial selection was reported by 6.25%, and 3.33% discontinued due to refusal from the husband or family.

Discussion

This study demonstrated that structured contraceptive counselling significantly increased postpartum contraceptive uptake and altered method preferences towards more effective and long-acting reversible contraceptives (LARCs) such as copper IUCD, depot medroxyprogesterone acetate (DMPA), and implants. The overall adoption rate increased from 76.23% pre-counselling to 95.04% post-counselling, reflecting the positive influence of targeted information and personalized counselling.

Our pre-counselling contraceptive prevalence was higher than the 66.7% reported by Nath *et al*. in a rural Indian population [7], likely due to higher literacy in our cohort (93.4%). However, similar to earlier Indian studies [8, 9], reliance on natural and barrier methods remained high before intervention, suggesting persistent gaps in awareness and accessibility to more effective methods. Following counselling, IUCD uptake tripled and DMPA acceptance increased more than fifty-fold, findings comparable to Bangal *et al*., who observed significant IUCD acceptance with structured peripartum counselling [11]. Bizjak *et al*. also reported sustained increases in LARC use when structured counselling was implemented in European healthcare settings [12].

Notably, awareness of implants was negligible pre-counselling (1.98%) but increased post-counselling, leading to a modest adoption rate (3.12%). This reinforces WHO's observation that expanding knowledge of less-known methods improves contraceptive choice diversity [9].

The primary barriers before counselling—husband's disapproval, desire for more children, and fear of complications—mirror those reported in South Asian contexts [6, 8]. Our findings that structured counselling reduced misconceptions align with Robinet *et al*., who found that targeted education during postpartum visits corrected misinformation and improved decision-making [10].

Continuation rates at one month were 60.76%, with discontinuation largely due to logistical issues such as non-availability in government supply, time constraints, and subsequent sterilisation. This is consistent with Jain and Winfrey's work, which attributed discontinuation in low-resource settings more to service delivery limitations than to method dissatisfaction [13]. Addressing these health system barriers and involving male partners in counselling could improve method continuation.

Table 1: Demographic characteristics of participants (n=303)

Characteristic	Frequency (n=303)	Percentage (%)
Age group (years)		
18–23	58	19.14
24–29	170	56.11
30–35	64	21.12
>35	11	3.63
Literacy		
Illiterate	20	6.60
Literate	283	93.40
Employment		
Unemployed	175	57.76
Employed	128	42.24
Religion		
Hindu	240	79.21
Sikh	39	12.87
Muslim	19	6.27
Others	5	1.65
Parity		
1 child	172	56.77
2 children	88	29.04
3 children	43	14.19

Table 2: Awareness and myths before counselling

Parameter	Frequency (n=303)	Percentage (%)
Awareness of family planning		
Yes	258	85.15
No	45	14.85
Most known method		
Barrier	243	80.20
OCPs/POPs	199	65.68
Copper T	142	46.86
DMPA	151	49.83
LAM	66	21.78
Myths about contraception		
Permanent infertility	60	19.80
Weakness	29	9.57
Menstrual irregularity	24	7.92
Mood swings	21	6.93
Religious limitations	19	6.27

Table 3: Contraceptive use before counselling

Method	Frequency (n=303)	Percentage (%)
Natural methods		
Withdrawal	37	12.21
Calendar method	27	8.90
Temporary methods		
Barrier	96	31.68
OCPs/POPs	36	11.88
Copper T	34	11.22
DMPA	1	0.33
Implants	0	-

Table 4: Contraceptive uptake before and after counselling (n=288)

Method	Pre-counselling n (%)	Post-counselling n (%)	% Change
Natural (total)	64 (21.11)	39 (13.54)	-39.06
Withdrawal	37 (12.21)	30 (10.42)	-18.91
Calendar method	27 (8.90)	9 (3.12)	-66.6
Copper T	34 (11.22)	114 (39.58)	↑
DMPA	1 (0.33)	54 (18.75)	↑
OCPs/POPs	36 (11.88)	40 (13.89)	↑
Barrier	96 (31.68)	32 (11.11)	↓
Implants	0 (0)	9 (3.12)	↑

Table 5: Continuation and discontinuation of chosen method

Status/Reason	Frequency (n=303)	Percentage (%)
Initiated	175	60.76
Not initiated	51 (17.70)	17.70
Discontinued	62 (21.52)	21.52
No time to visit hospital	20 (8.33)	8.33
Method not in government supply	19 (7.92)	7.92
Permanent sterilisation	15 (6.25)	6.25
Husband/family refused	8 (3.33)	3.33

Conclusion

Overall, our study supports integrating structured contraceptive counselling into routine antenatal, intrapartum, and early postpartum care, particularly in rural populations. By improving informed choice, dispelling myths, and promoting uptake of LARCs, such interventions can contribute to reduced unintended pregnancies and better maternal–child health outcomes.

This study demonstrates that structured contraceptive counselling is highly effective in improving postpartum contraceptive uptake and guiding women toward more reliable, long-acting methods such as copper IUDs and DMPA injections. By systematically addressing knowledge gaps, correcting misconceptions, and providing personalised, evidence-based guidance, counselling enabled 95% of participants to make an informed contraceptive choice compared to 76% before counselling.

The intervention not only reduced dependence on less effective natural methods but also increased acceptance of methods freely available under the National Family Planning Programme. These findings highlight the importance of delivering structured counselling during antenatal visits, intrapartum care, and the immediate postpartum period, particularly in rural settings where follow-up opportunities are limited.

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