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Structured counselling as a strategy to improve informed postpartum contraceptive decisions in rural India

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Abstract
Background: The postpartum period offers a critical opportunity to address unmet family planning needs, yet many women in rural India lack access to comprehensive contraceptive counselling. Structured counselling, focusing on informed choice and client-centred discussion, may improve method uptake and reduce reliance on less effective options.
Objectives: To evaluate the impact of structured counselling on postpartum contraceptive awareness, method preference, and adoption among rural women.
Methods: This cross-sectional, interventional study was conducted from August 2023 to April 2024 at Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh. A total of 303 women aged 18–40 years, recruited during antenatal, intrapartum, or postpartum visits, were enrolled. Eligible participants completed a pre-counselling questionnaire assessing baseline awareness and practices, followed by a 20-minute structured counselling session based on WHO Medical Eligibility Criteria. Post-counselling, contraceptive preferences were recorded, and follow-up at one month assessed initiation and continuation. Data were analysed using SPSS version 26.0, with $p<0.05$ considered significant.
Results: The mean age of participants was 26.9 ± 4.1 years; 56.77% had one live child. Pre-counselling, 85.15% were aware of family planning, but modern method use was limited: barrier methods (31.68%) and copper T (11.22%) were most common, while DMPA use was 0.33%. Post-counselling, undecided women decreased from 23.76% to 4.96%, natural method use declined by 39.06%, and LARC adoption increased substantially—copper T from 34 to 114 women, and DMPA from 1 to 54 women. At one-month follow-up, 60.76% had initiated their chosen method, 17.70% had not started, and 21.52% had discontinued, mainly due to time constraints, method unavailability, and partner/family refusal.
Conclusion: Structured counselling significantly improved informed postpartum contraceptive decisions, shifting preference towards more effective methods, particularly LARCs. Integrating such counselling into routine maternal healthcare, alongside addressing supply and socio-cultural barriers, can enhance postpartum family planning uptake and sustainability in rural India.

Keywords: Structured counselling, postpartum contraception, long-acting reversible contraceptives, family planning, rural India

Introduction

A woman's reproductive rights, including the ability to determine the number, timing, and spacing of her children, are fundamental to women's empowerment and gender equality. Family planning is globally recognized for its benefits in improving women's health, fostering economic stability, and enhancing overall social welfare for women and their families [1].

The World Health Organization (WHO) defines postpartum family planning (PPFP) as the prevention of unintended and closely spaced pregnancies within the first 12 months following childbirth [2]. WHO recommends that the interval between a woman's previous childbirth and the next conception should be at least two years [3]. Despite this, data show that 95% of women in the first-year postpartum wish to avoid pregnancy for at least two years, yet 70% do not use contraception [4]. Adequate spacing between pregnancies can prevent over 30% of maternal deaths and 10% of child mortality [5], while short interpregnancy intervals (<12 months) significantly increase the risks to both mother and child [6, 7].

Analyses of Demographic and Health Survey (DHS) data from 17 developing countries indicate that newborn and infant mortality risks decrease with longer birth intervals, especially up to 36 months [8]. In India, NFHS-3 reports that 11% of births occur within 18 months of a prior birth and 28% within 24 months, with over 60% occurring within three years—well below the optimal interval of 36–59 months [9]. In Uttar Pradesh, the unmet need for family planning among currently married women of reproductive age is 21.2%, largely due to service dissatisfaction, lack of information, fear of side effects, and opposition from family members [10].

The postpartum period is a unique opportunity for counselling, particularly for women in rural areas who may have limited subsequent interactions with healthcare providers. Antenatal visits, labour, delivery, and infant immunization appointments provide multiple touchpoints to offer PPFP counselling. However, postpartum contraceptive uptake is often low, with many women relying on less effective natural methods such as breastfeeding, withdrawal, and calendar-based approaches [11, 13].

Multiple contraceptive options exist for the postpartum period, including non-hormonal, hormonal, and long-acting reversible contraceptive (LARC) methods. Non-hormonal methods encompass natural techniques like lactational amenorrhoea method (LAM), coitus interruptus, and fertility awareness methods, as well as barrier methods such as male and female condoms. Hormonal options include combined oral contraceptives (COCs), progesterone-only pills (POPs), injectables (DMPA, NET-EN), and implants, while intrauterine devices (IUDs) remain a highly effective postpartum choice [14, 26].

Contraceptive counselling is defined as the exchange of evidence-based information tailored to an individual's needs, preferences, and lifestyle to support informed choice, continuation, or switching of contraceptive methods. Structured counselling involves a systematic approach—

comprising greeting, needs assessment, education, decision-making facilitation, and follow-up—that addresses misconceptions, discusses side effects, and promotes shared decision-making [27, 28].

In Himachal Pradesh, contraceptive awareness is nearly universal, with prevalence among currently married women (15–49 years) increasing from 57% in NFHS-4 to 74% in recent years. Modern method uses rose from 52% to 63% during the same period [29]. However, knowledge gaps remain—only 51% are aware of LAM, 33% of female condoms, and 67% of emergency contraception [30].

This study was therefore designed to evaluate the impact of structured counselling on postpartum contraceptive decision-making among women in a rural tertiary care centre. The aim is to encourage informed choices toward more reliable methods with minimal failure rates, thus improving maternal and child health outcomes.

Material 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, India, between August 2023 and April 2024. A total of 303 women fulfilling the eligibility criteria and providing informed consent were enrolled. Participants were recruited from the antenatal outpatient department in the third trimester, the intrapartum wards, and during postpartum follow-up visits or while attending immunization clinics for their infants. Women aged 18–40 years were included, whereas those more than 8 weeks postpartum, above 40 years of age, opting for permanent contraception, or unwilling to participate were excluded.

All eligible women were first administered a pre-counselling questionnaire to assess baseline awareness, attitudes, and practices regarding contraception. Following this, each woman received a structured counselling session lasting approximately 20 minutes, conducted in the outpatient complex for antenatal or postnatal women and at the bedside for intrapartum or immediate postpartum women. Counselling followed a patient-centred, shared decision-making approach in line with the WHO Medical Eligibility Criteria for contraceptive use [1]. The discussion covered contraceptive efficacy, advantages, disadvantages, potential side effects, and timing for initiation in the postpartum period. Misconceptions were addressed, and both government-supplied and market-available contraceptive options were discussed using visual charts and demonstration kits.

Post-counselling, women completed a second questionnaire to document any change in contraceptive preference. The chosen method for antenatal participants was recorded on their antenatal care card, while intrapartum and postpartum participants either had the method initiated immediately or noted for initiation at a later visit. Those opting for interval IUCD or DMPA were scheduled for a 6–7-week postpartum appointment. Data from questionnaires were recorded in a pre-designed proforma and the hospital's Maternal and Child Health register.

Follow-up was conducted one month after initiation, either in person or via telephone, to determine whether the chosen method was started, continued, or discontinued, and to record reasons for discontinuation. The primary outcomes were changes in contraceptive choice before and after counselling and the proportion of women adopting reliable methods. Secondary outcomes included awareness of different contraceptive methods, prevalence of myths, and reasons for non-use or discontinuation. Data were compiled in Microsoft Excel 2021 and analysed using SPSS version 26.0. Qualitative variables were summarised as frequency and percentage, and associations were tested using Chi-square or Fisher's exact test. Quantitative variables were expressed as mean ± standard deviation, and comparisons were made using the independent samples t-test or Mann–Whitney U test, as appropriate. A p-value of <0.05 was considered statistically significant.

Table 1: Distribution of women according to period of pregnancy

Period of Pregnancy	No. of Women (n=303)	Percentage (%)	Loss to Follow-up (n=63)	Percentage (%)
Antenatal	191	63.03	48	25.13
Intrapartum	48	15.84	3	6.25
Postpartum	64	21.12	12	18.75
Total	303	100.00	63	20.79

Table 2: Socio-demographic profile of study participants

Variable	Category	No. of Women (n=303)	Percentage (%)
Age (years)	18–23	58	19.14
	24–29	170	56.11
	30–35	64	21.12
	>35	11	3.63
Education	Illiterate	20	6.60
	Primary	20	7.07
	Secondary	53	18.73
	High school	162	57.24
	Graduation	34	12.01
	Post-graduation	14	4.95
Employment	Employed	128	42.24
	Unemployed	175	57.76
Religion	Hindu	240	79.21
	Sikh	39	12.87
	Muslim	19	6.27
	Others	5	1.65
Parity	1 live child	172	56.77
	2 live children	88	29.04
	3 live children	43	14.19

Table 3: Awareness about family planning and contraceptive methods (Pre-counselling)

Awareness Parameter	No. of Women (n=303)	Percentage (%)
Overall awareness		
Aware of family planning	258	85.15
Not aware	45	14.85
Natural methods		
Withdrawal	102	33.66
Safe period (Calendar method)	105	34.65
Lactational amenorrhoea	66	21.78
Temporary methods		
Barrier	243	80.20
Pills (OCPs/POPs)	199	65.68
Copper T	142	46.86
DMPA injections	151	49.83
Implants	6	1.98
Permanent methods		
Tubectomy	60	19.80
Vasectomy	30	9.98
Attitude		
Ideal interpregnancy interval ≥2 yrs	153	50.49
Family planning good for mother & child	264	87.13

Table 4: Comparison of contraceptive use before and after counselling

Method	Pre-counselling (n)	Post-counselling (n)	Change (%)
Natural			
Withdrawal	37	30	–18.91
Safe period	27	9	–66.60
Temporary			
Copper T	34	114	↑
DMPA injections	1	54	↑
Pills (OCPs/POPs)	36	40	↑
Barrier	96	32	↓
Implants	0	9	↑
Undecided	72	15	–79.16

Table 5: Initiation and discontinuation of contraception after counselling

Status after 1-month follow-up	No. of Women (n=288)	Percentage (%)
Initiated method	175	60.76
Not initiated	51	17.70
Discontinued	62	21.52
Reasons for discontinuation		
No time to visit hospital	20	8.33
Permanent sterilization	15	6.25
Husband/family refusal	8	3.33
Not in government supply	19	7.92

Results

Distribution of women according to period of pregnancy

This table shows that out of 303 participants, the majority (63.03%) were counselled during the antenatal period, followed by 21.12% in the postpartum period and 15.84% in the intrapartum period. A total of 63 women (20.79%) were lost to follow-up, with the highest loss observed among antenatal participants (25.13%). This distribution highlights that antenatal visits provided the most frequent opportunity for structured counselling interventions.

Socio-demographic profile of study participants

Table 2 presents the socio-demographic characteristics of the participants. More than half (56.11%) were aged 24–29 years, and only 3.63% were above 35 years. Most women were literate (93.40%), with high school education being the most common level attained (57.24%). A majority were unemployed (57.76%) and Hindu (79.21%). In terms of parity, more than half (56.77%) had one live child, 29.04% had two children, and 14.19% had three children. This profile indicates a relatively young, educated population with varying family sizes.

Awareness about family planning and contraceptive methods (Pre-counselling)

This table summarises pre-counselling awareness levels. Overall, 85.15% of women were aware of family planning. Awareness of natural methods varied, with 34.65% knowing about the safe period, 33.66% about withdrawal, and 21.78% about lactational amenorrhoea. Among temporary methods, barrier contraception (80.20%) was most recognised, followed by oral contraceptive pills (65.68%), DMPA injections (49.83%), and copper T (46.86%). Only 1.98% knew about implants. Permanent methods such as tubectomy and vasectomy were known to 19.80% and 9.98% of women, respectively. Half of the participants were aware of the ideal interpregnancy interval (≥2 years), and a majority (87.13%) believed family planning benefits both mother and child.

Comparison of contraceptive use before and after counselling

Table 4 compares contraceptive method choice before and after structured counselling. Post-counselling, there was a marked shift towards long-acting reversible contraceptives (LARCs), with copper T use increasing from 34 to 114 women and DMPA use from 1 to 54 women. The number of undecided women reduced sharply from 72 to 15. Use of natural methods decreased substantially: safe period from 27 to 9 women and withdrawal from 37 to 30. Barrier method use dropped from 96 to 32 women, while pills showed a modest increase (36 to 40). Notably, nine women opted for implants post-counselling compared to none beforehand.

Initiation and discontinuation of contraception after counselling

This table outlines method initiation and discontinuation rates at one-month follow-up. Of the women counselled, 60.76% had initiated their chosen method, 17.70% had not yet started, and 21.52% had discontinued. The main reasons for discontinuation included lack of time to visit a hospital (8.33%), method unavailability in government supply (7.92%), permanent sterilization (6.25%), and refusal from husband or family members (3.33%). These findings highlight that while structured counselling improved method adoption, logistical and social barriers still influenced sustained use

Discussion

This study demonstrated that structured counselling significantly improved informed contraceptive decision-making among rural women in the postpartum period. Following counselling, there was a substantial shift from reliance on less effective natural methods and undecided status toward modern, more reliable contraceptive methods, particularly long-acting reversible contraceptives (LARCs) such as copper T and DMPA.

The baseline awareness of family planning in our study (85.15%) was higher than that reported in NFHS-5 for Himachal Pradesh (74%) [31], likely reflecting our recruitment from a tertiary care centre where exposure to health education is greater. However, awareness did not necessarily translate to informed method choice; before counselling, natural methods and barriers dominated usage patterns, with low uptake of LARCs. This gap between awareness and effective method adoption has been documented in other studies from India and similar low- and middle-income settings [32, 33].

Post-counselling, copper T use increased more than threefold, and DMPA adoption rose dramatically from 0.33% to 17.82%. This finding is consistent with studies by Akintade *et al*. [34] and Borda *et al*. [35], which found that structured, client-centred counselling substantially increased the uptake of LARCs. Importantly, the number of undecided women fell from 23.76% to just 4.96%, underscoring the role of counselling in resolving indecision—a finding echoed by Stanback *et al*. [36], who reported improved method choice clarity following structured counselling.

The reduction in natural method reliance by 39% and the significant decline in barrier method use suggest that women, when fully informed, tend to choose methods with higher efficacy. Similar trends were reported by Jain *et al*. [37] in their prospective cohort study, where contraceptive efficacy was a major determinant of method switching after counselling.

Despite improved uptake, follow-up data revealed that only 60.76% initiated their chosen method within one month, and 21.52% discontinued. Barriers included time constraints, method unavailability in government supply, and spousal or family disapproval. These findings are in line with studies by Cleland *et al*. [38] and Tripathi *et al*. [39], which highlight that socio-cultural norms and logistical constraints continue to impede sustained contraceptive use, even after effective counselling.

The observed preference for copper T across parity levels mirrors findings from Government of India FP program data [30], where IUCDs remain the most popular LARC in public-sector facilities due to free provision, long duration of protection, and non-reliance on user adherence. The modest adoption of implants in our study (2.97%) reflects both low availability and limited provider familiarity, as also noted in WHO program evaluations [41].

An important implication of this study is that the antenatal and immediate postpartum periods offer critical opportunities for structured counselling, especially in rural areas where postnatal follow-up visits are inconsistent. As suggested by WHO [42], integrating PPFP counselling into existing maternal and child health touchpoints can bridge the gap between awareness and adoption, provided that method availability and community engagement are ensured.

Overall, our findings affirm that structured, client-focused counselling is a highly effective strategy to increase informed contraceptive choice and uptake in rural India. However, sustainability of use requires complementary interventions addressing supply chain efficiency, male partner involvement, and cultural acceptability.

Conclusion

Structured, client-focused counselling proved to be an effective strategy for improving informed postpartum contraceptive decision-making among rural women in India. The intervention significantly increased the adoption of modern contraceptive methods, particularly long-acting reversible contraceptives such as copper T and DMPA, while reducing reliance on less effective natural methods and decreasing indecision. These findings highlight that targeted counselling during antenatal, intrapartum, and immediate postpartum periods can bridge the gap between contraceptive awareness and method uptake.

However, sustaining contraceptive use requires addressing persistent barriers such as limited method availability in government supply, time constraints in accessing health facilities, and socio-cultural opposition from partners or family members. Strengthening supply chains, involving male partners, and integrating family planning messages into community outreach programs are essential to ensure continued use.

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