



## Research Article

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# Birth, bond and beyond: Maternal care experiences and contraceptive concerns among primipara postnatal mothers in an urban Indian community

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**Abstract:**

The postpartum period presents unique maternal-care and contraceptive challenges for first-time mothers. Therefore, it is of interest to assess the maternal care experiences and contraceptive concerns among 60 primiparous postnatal mothers in urban Chennai, with qualitative interviews conducted among six participants. Thematic analysis identified institutional support, family support and physical challenges as the major maternal-care experiences. Overall, 83.33% of mothers reported moderate contraceptive concerns, 16.67% high concerns and negative beliefs were common, with concern levels significantly associated with age, education, occupation and antenatal visits ( $p \leq 0.05$ ). Thus, integrating culturally sensitive, nurse-led contraceptive counselling into routine antenatal and postnatal care may improve knowledge, address misconceptions and promote informed contraceptive decision-making.

**Keywords:** Primipara, postpartum period, contraception, family planning, maternal health, nursing assessment

**Background:**

Childbirth inaugurates a roughly six-week postpartum phase during which a woman undergoes profound hormonal, physical and emotional shifts [1]. For first-time mothers this passage is particularly demanding: they experience fatigue, breastfeeding difficulties, mood disturbances and when poorly supported, an elevated risk of postpartum depression, the global prevalence of which has been estimated at 17.22% [2]. Within this same window lies a parallel and often overlooked reproductive-health imperative known as postpartum contraception. Ovulation may resume as early as three weeks after delivery in non-fully breastfeeding women and short inter-pregnancy intervals are linked to preterm birth, low birth weight and increased maternal morbidity. Despite the recognised importance of postpartum family planning, uptake remains uneven. Among more than 1.2 million US Medicaid enrollees, wide state-level variation was reported in effective contraceptive use within 60 days of delivery, indicating that even in well-resourced systems contraceptive provision lags behind need [3]. In sub-Saharan Africa, a hospital-based study of postpartum adolescent mothers found that only 28.3% used any contraceptive, with income, occupation, distance to health facility and an explicit method preference emerging as significant predictors [4]. Indian data show similar disparities: a North-Indian tertiary-care study reported that 59.8% of postpartum mothers had unplanned pregnancies and that 89% accepted a method only after structured behaviour-change counselling, with primipara women favouring intrauterine devices and injectables [5]. Concern about side effects is the single most consistent barrier to contraceptive uptake worldwide. A mixed-methods study from rural Ghana found that 68.9% of sexually active women wishing to avoid pregnancy had unmet need, with fear of menstrual changes, infertility and rumours about long-term harm

dominating the qualitative narrative [6]. These concerns are amplified during the postpartum period, when women are simultaneously coping with newborn care and re-evaluating their reproductive futures. Knowledge alone does not translate into use. A nationwide analysis from Zambia documented that 99% of women had heard of at least one modern method, yet only a minority used one, with marked rural-urban patterning in correlates [7]. Therefore, it is of interest to report the maternal care experiences qualitatively and to assess contraceptive concerns and beliefs quantitatively among primipara postnatal mothers in a selected urban area of Chennai and to examine the association of concern levels with selected socio-demographic and obstetrical characteristics.

**Materials and Methods:**

An exploratory, sequential, mixed-methods design was employed. The qualitative phase used a phenomenological approach to explore lived maternal-care experiences, while the quantitative phase used a descriptive cross-sectional design to assess contraceptive concerns and beliefs. The study was conducted in a selected urban locality of Chennai, Tamil Nadu, India, over four weeks. Six participants were recruited through purposive sampling for the qualitative phase and 60 mothers through convenience sampling for the quantitative phase. The quantitative sample size was calculated using the formula  $n = Z^2 \times p(1-p)/e^2$ , with  $Z = 1.96$ , an anticipated proportion of 0.342, 95% confidence and 5% precision, yielding a final sample of 60. Primipara mothers aged 18–40 years within six months postpartum, who had received institutional maternal care, were able to communicate in Tamil or English and provided informed consent, were included. Mothers with severe postpartum complications, cognitive impairment, prior childbirth experience, home births without institutional contact, or

concurrent participation in another study were excluded. Three instruments were used: a structured socio-demographic and obstetrical proforma, a semi-structured interview schedule developed by the investigator and the Contraceptive Concerns and Beliefs Scale. Content validity was obtained from a panel of subject experts in nursing, obstetrics and public health. After Institutional Ethics Committee approval and block-level administrative permission, eligible mothers were approached individually. The purpose, voluntary nature and confidentiality safeguards were explained and written informed consent was obtained from every participant. Qualitative interviews were conducted in Tamil or English as preferred, audio-recorded, transcribed verbatim and analysed thematically; rigour was established through prolonged engagement, member checking, methodological triangulation with quantitative findings and confirmation of data saturation. A pilot study on 10% of the projected sample preceded the main study; pilot participants were excluded from the final analysis. Quantitative data were coded in Microsoft Excel and analysed in IBM SPSS Statistics. A p-value  $\leq 0.05$  was considered statistically significant.

Results:

Of the 60 primipara postnatal mothers enrolled, the largest proportion (38.33%) was aged 21–25 years; 36.67% had completed higher secondary education, 75.00% were homemakers, 90.00% were Hindu, 63.33% lived in nuclear families and 100% were urban residents. Most households (61.67%) reported a monthly income of ₹5,001–10,000, 60.00% had married between 21 and 25 years and 13.33% reported a history of miscarriage or abortion. Obstetrically, 48.33% delivered at term (37–40 weeks), 80.00% attended more than six antenatal visits, 86.67% had institutional deliveries, 78.33% had a normal vaginal delivery and 85.00% of newborns weighed within the normal range (2.5–3.5 kg). Thematic analysis of six in-depth interviews yielded three overarching themes and six subthemes. The first theme, institutional support in maternal care, comprised "Professional support from health staff" and "Guidance and health education," reflecting positive perceptions of doctors and nurses and the receipt of breastfeeding, nutrition and immunisation advice. The second theme, family's role in maternal recovery, comprised "Physical and emotional support" and "Night care and rest support," emphasising the central role of mothers, mothers-in-law, husbands and sisters in caregiving and sleep protection. The third theme, physical challenges and clinical interventions, comprised "Physical limitations post-delivery" and "Clinical decisions and safety," capturing post-caesarean weakness, restricted mobility and the emotional negotiation of unplanned caesarean births. The mean composite score on the Contraceptive Concerns and Beliefs Scale was  $13.33 \pm 1.62$  out of 24 (55.54%). Item-level analysis revealed a profile dominated by negative beliefs: worry about dangerous side effects was endorsed by 98.33% (mean  $3.03 \pm 0.26$  of 4), discomfort with perceived bodily effects by 95.00% (mean  $2.98 \pm 0.39$ ), concern that drug companies withhold information by 91.67% (mean  $2.90 \pm 0.44$ ) and the belief that contraception is unnatural by 88.33% (mean  $3.00 \pm 0.90$ ). Conversely, only 3.34%

endorsed the positive belief that birth control is good for health (mean  $0.70 \pm 1.09$ ; 17.5% of maximum) and only 1.67% considered hormonal methods safe (mean  $0.72 \pm 0.58$ ; 18.0% of maximum). Categorically, 83.33% (n = 50) of mothers had moderate concerns, 16.67% (n = 10) had high concerns and none had low concerns. Chi-square testing identified statistically significant associations between contraceptive-concern level and maternal age ( $\chi^2 = 9.91$ , p = 0.05), education ( $\chi^2 = 9.38$ , p = 0.05), occupation ( $\chi^2 = 8.00$ , p = 0.05) and number of antenatal visits ( $\chi^2 = 5.00$ , p = 0.05). Older mothers, those with higher schooling, working mothers and those with more than six antenatal contacts showed a higher proportion in the high-concern category. Religion, family type, monthly income, age at marriage, age at first pregnancy, history of miscarriage, gestational age, place of delivery, mode of delivery and neonatal birth weight were not significantly associated with concern level (p > 0.05) (Table 1).

Table 1: Association between contraceptive concern level and selected demographic and obstetrical variables (n = 60).

| Variable         | Category            | Moderate n (%) | High n (%) | Total | $\chi^2$ (p value) |
|------------------|---------------------|----------------|------------|-------|--------------------|
| Age (years)      | 18–20               | 4 (100.00)     | 0 (0.00)   | 4     | 9.91 (0.05)*       |
|                  | 21–25               | 22 (95.65)     | 1 (4.35)   | 23    |                    |
|                  | 26–30               | 18 (81.82)     | 4 (18.18)  | 22    |                    |
|                  | 31–40               | 6 (54.55)      | 5 (45.45)  | 11    |                    |
| Education        | No formal education | 5 (100.00)     | 0 (0.00)   | 5     | 9.38 (0.05)*       |
|                  | Primary school      | 21 (100.00)    | 0 (0.00)   | 21    |                    |
|                  | Secondary school    | 8 (66.67)      | 4 (33.33)  | 12    |                    |
|                  | Higher secondary    | 16 (72.73)     | 6 (27.27)  | 22    |                    |
| Occupation       | Homemaker           | 41 (91.11)     | 4 (8.89)   | 45    | 8.00 (0.05)*       |
|                  | Private job         | 8 (61.54)      | 5 (38.46)  | 13    |                    |
|                  | Government job      | 1 (50.00)      | 1 (50.00)  | 2     |                    |
| Antenatal visits | 4–6                 | 12 (100.00)    | 0 (0.00)   | 12    | 5.00 (0.05)*       |
|                  | > 6                 | 38 (79.17)     | 10 (20.83) | 48    |                    |

\*Statistically significant at p  $\leq 0.05$ ; NS = not significant. None of the participants fell into the low-concern category.

Discussion:

The present study showed that none of the 60 primipara mothers fell into the low-concern category, while 83.33% reported moderate and 16.67% high contraceptive concerns. Item-level analysis revealed near-universal worry about side effects (98.33%), dislike of perceived bodily effects (95.00%) and mistrust of pharmaceutical disclosure (91.67%), whereas endorsement of the positive beliefs that contraception is good for health (3.34%) or that hormones are safe (1.67%) was negligible. This pattern aligns with the Necessity Concerns framework underpinning the Contraceptive Concerns and Beliefs Scale, in which a one-unit increase in concerns is associated with measurably lower use [8]. The qualitative themes contextualise these findings: institutional and familial support was reported as substantial, yet contraceptive counselling appeared not to penetrate this scaffold. Recent South Asian evidence from the Nepal Demographic and Health Survey 2022 has shown that

even where awareness is high, women's age, education, occupation and reproductive history continue to shape unmet need for family planning [9]. That 100% of urban Chennai primipara mothers in the present study harbour at least moderate concerns suggests the same belief structures persist even where institutional access is comparatively good—a sobering signal for any programme that assumes provision alone is sufficient. Significant associations of concern level with age, education, occupation and antenatal-visit frequency are particularly instructive. Older, more educated and working mothers showed higher proportions of high concern, supporting evidence from Northwest Ethiopia where employment status, urban residence and prior provider discussion shaped both knowledge and attitude towards postpartum intrauterine contraceptive devices, with a six-fold knowledge advantage among those who had ever discussed the device with a provider [10]. A pooled meta-analysis of Ethiopian postpartum intrauterine contraceptive device studies similarly identified women's education and antenatal-care exposure as the most consistent correlates of postpartum contraceptive use [11]. The counter-intuitive direction in our sample, where more antenatal contacts were associated with greater concern, may reflect heightened information-seeking that surfaces, rather than resolves, latent fears in the absence of structured belief-focused counselling. Within Indian settings, female sterilisation continues to dominate even in literate states; a community-based survey of young married women reported sterilisation as the largest share of current use despite low overall preference [12]. The present results extend that picture to the specifically primiparous, urban, postnatal segment, where reversible spacing methods are most clinically appropriate yet belief barriers are uniformly elevated. Together, these findings reinforce that contraceptive counselling cannot be a one-time antenatal handout but must be integrated, repeated and belief-focused across the maternal-care continuum [13]. Nurses in urban communities should screen primipara mothers for specific contraceptive concerns and design interventions, structured belief-focused counselling, partner-inclusive discussions and community follow-up that align knowledge with informed practice. Limitations include a single urban setting, a modest convenience sample, self-reported responses and a brief data-collection window; larger longitudinal multi-centre studies are warranted.

### Conclusion:

Contraceptive awareness did not consistently translate into confidence or use among urban primipara mothers. Nurse-led, culturally sensitive counselling should address misconceptions and contraceptive concerns early. Strengthening spacing-method counselling may promote informed contraceptive choices and maternal-child health.

### Ethical approval:

Approval was obtained from the Institutional Ethics Committee of Madras Medical College, Chennai and written informed consent was obtained from all participants in accordance with the Declaration of Helsinki.

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**Conflicts of interest:** The authors declare no conflicts of interest.

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