

Knowledge and Awareness of Lactational Amenorrhea Method as a Contraceptive Method among spouses of postpartum women – A Descriptive Cross-sectional study in a Tertiary care hospital in Chengalpattu district

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Abstract

Background: The postpartum period is a critical window for initiating effective contraception to prevent unintended pregnancies and ensure optimal birth spacing. The Lactational Amenorrhea Method (LAM) is a simple, cost-effective, and natural contraceptive method that provides up to 98% protection when practiced under specific conditions. Despite its effectiveness, awareness regarding LAM remains low, particularly among male partners, who play a significant role in family planning decisions.

Objectives: To assess the knowledge and awareness of the Lactational Amenorrhea Method among spouses of postpartum women and to identify socio-demographic factors associated with knowledge levels.

Methods: A descriptive cross-sectional study was conducted among 100 spouses of postpartum women attending the postnatal wards of a tertiary care hospital over a period of three months (October–December 2025). Participants aged ≥ 21 years whose partners had delivered within the past six months were included using a convenience sampling technique. Data were collected using a structured, pretested questionnaire covering socio-demographic details, obstetric characteristics, knowledge, awareness, and attitudes regarding LAM. Data were analyzed using descriptive statistics and Chi-square test to determine associations, with $p < 0.05$ considered statistically significant.

Results: Among the 100 participants, the majority were aged 26–30 years (36%) and belonged to nuclear families (64%). Only 34% had heard about LAM, and 26% were aware that it acts as a contraceptive method. Knowledge regarding key criteria was limited, with 30% aware that the infant should be less than six months old, 28% aware of exclusive breastfeeding, and 24% aware of the requirement of amenorrhea. Only 14% knew that LAM is more than 98% effective. Overall, 48% of participants had poor knowledge, 32% had average knowledge, and only 20% demonstrated good knowledge. Despite poor knowledge, attitudes were favorable, with 68% agreeing that husbands should support LAM use and 76% supporting health education for couples. Educational status showed a statistically significant association with knowledge level ($p = 0.003$), while age, income, and family type were not significantly associated.

Conclusion: The study revealed low levels of knowledge and awareness regarding LAM among spouses of postpartum women, despite generally positive attitudes toward its use. Educational status was a key determinant of knowledge. There is a need for targeted educational interventions and inclusion of male partners in postpartum family planning counseling to improve awareness and promote appropriate use of LAM.

Keywords: Lactational Amenorrhea Method, postpartum contraception, male involvement, knowledge, awareness, family planning

Introduction

Family planning and optimal birth spacing are essential components of maternal and child health, contributing significantly to the reduction of maternal and infant morbidity and mortality. The postpartum period represents a critical window for initiating effective contraception, as many women may have unmet needs for family planning during this time. Short interpregnancy intervals are associated with adverse outcomes such as preterm birth, low birth weight, and increased neonatal mortality, highlighting the importance of timely contraceptive adoption after childbirth^{1,2}.

The Lactational Amenorrhea Method (LAM) is a natural, cost-effective, and temporary contraceptive method based on the physiological suppression of ovulation during exclusive breastfeeding. When practiced correctly under three essential conditions—amenorrhea, exclusive breastfeeding, and infant age less than six months LAM has been shown to be up to 98% effective in preventing pregnancy³. In addition to its contraceptive benefits, LAM promotes exclusive breastfeeding, which has well-documented advantages for both maternal and child health, including improved immunity, nutrition, and bonding⁴.

Despite its effectiveness and added health benefits, awareness and utilization of LAM remain suboptimal, particularly in low- and middle-income countries like India. While breastfeeding is widely practiced, the recognition of its contraceptive potential is limited. Studies have shown that many couples are unaware of the specific criteria required for LAM effectiveness, leading to improper use and reduced efficacy^{5,6}. Furthermore, misconceptions regarding the return of fertility during the postpartum period contribute to unintended pregnancies⁷.

Male involvement in family planning is increasingly recognized as a key determinant of contraceptive uptake and continuation. In many cultural settings, including India, male partners play a significant role in reproductive decision-making. However, their knowledge and awareness of postpartum contraceptive methods, including LAM, are often inadequate⁸. Engaging male partners in family planning counseling can improve communication between couples, enhance shared decision-making, and increase the adoption of appropriate contraceptive methods. Assessing the knowledge, awareness, and attitudes of spouses regarding LAM is therefore crucial to identify existing gaps and barriers. Such information can guide targeted educational interventions and strengthen postpartum family planning services. This study aims to evaluate the level of knowledge and awareness of LAM among spouses of postpartum women attending a tertiary care center and to explore socio-demographic factors influencing their understanding, thereby contributing to improved maternal and child health outcomes.

Methodology

Study Design: This study was conducted as a descriptive cross-sectional study to assess the knowledge, awareness, and attitudes regarding the Lactational Amenorrhea Method (LAM) among spouses of postpartum women. A cross-sectional design was considered appropriate as it enables assessment of these variables at a single point in time without follow-up.

Study Setting and Duration: The study was carried out at a tertiary care teaching hospital providing maternal and child health services, particularly postnatal care. The study was conducted over a period of three months (Oct 2025 to Dec 2025), during which participant recruitment and data collection were completed.

Study Population: The study population consisted of spouses of postpartum women attending the postnatal wards of the hospital. Spouses aged ≥ 21 years, whose partners had delivered within the last six months, and who provided informed consent were included. Those who were unavailable, unwilling to participate, or whose infants were older than six months were excluded from the study.

Inclusion Criteria

- Spouses aged ≥ 21 years
- Spouses of women who delivered within the last 6 months
- Those who provided informed consent

Exclusion Criteria

- Spouses who were unavailable or unwilling to participate
- Spouses of women whose infant was older than 6 months

Sample Size and Sampling Technique: A total of 100 participants were included in the study. The sample size was determined based on feasibility within the study duration. A convenience sampling technique was used, wherein eligible spouses attending the postnatal wards during the study period were approached consecutively until the required sample size was achieved.

Data Collection Tool: Data were collected using a structured, pretested, and validated questionnaire. The questionnaire included sections on sociodemographic characteristics (age, education, occupation, income, religion, and family type), obstetric and postpartum details (number of children, age of youngest child, mode of delivery, and breastfeeding status), knowledge and awareness of LAM (awareness, criteria for effectiveness, duration, advantages, and limitations), and attitude and practices related to LAM (support for use, prior advice, and source of information). The questionnaire was prepared in both Tamil and English to ensure better comprehension among participants.

Study Procedure: Eligible participants were identified in the postnatal wards, and the purpose and procedures of the study were explained to them. Written informed consent was obtained prior to participation. Data collection was carried out either through face-to-face interviews by trained investigators or by self-administered questionnaires, depending on the literacy level and preference of the participants. Each participant took approximately 10–15 minutes to complete the questionnaire, and assistance was provided whenever necessary.

Study Variables and Outcome Measures: The primary outcome variables included the level of knowledge and awareness of LAM, such as awareness of LAM as a contraceptive method, knowledge of its three essential criteria (exclusive breastfeeding, amenorrhea, and infant age less than six months), duration of effectiveness, and understanding of its advantages and limitations. Secondary outcomes included participants’ attitudes toward LAM, their support for their spouse’s use of LAM, prior involvement in contraceptive decision-making, and their future intentions regarding LAM use. Sociodemographic factors such as age, education, occupation, family type, number of children, and breastfeeding status were considered as independent variables.

Data Management and Statistical Analysis: The collected data were entered into Microsoft Excel and analyzed using appropriate statistical software such as SPSS. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. Inferential statistics, particularly the Chi-square test, were applied to assess the association between knowledge levels and socio-demographic variables. A p-value <0.05 was considered statistically significant.

Ethical Considerations: Ethical approval for the study was obtained from the Institutional Ethics Committee. Written informed consent was obtained from all participants before data collection. Confidentiality and anonymity were strictly maintained throughout the study. Participation was entirely voluntary, and participants were free to withdraw at any time without any consequences.

RESULTS

Table 1. Socio-demographic profile of participants (n = 100)

| Variable | Frequency n (%) |
|-----------------------------|-----------------|
| Age (years) | |
| 21–25 | 30 (30.0) |
| 26–30 | 36 (36.0) |
| 31–35 | 22 (22.0) |
| >35 | 12 (12.0) |
| Education | |
| Illiterate | 8 (8.0) |
| Primary | 16 (16.0) |
| Secondary | 28 (28.0) |
| Higher Secondary | 16 (16.0) |
| Graduate & Above | 32 (32.0) |
| Monthly Income (INR) | |
| <10,000 | 22 (22.0) |
| 10,000–20,000 | 34 (34.0) |
| 20,000–40,000 | 28 (28.0) |
| >40,000 | 16 (16.0) |
| Type of Family | |
| Nuclear | 64 (64.0) |
| Joint | 36 (36.0) |

A total of 100 spouses of postpartum mothers were included in the study. The majority of participants belonged to the 26–30 years age group 36 (36%), followed by 21–25 years 30 (30%), 31–35 years 22 (22%), and >35 years 12 (12%). Regarding educational status, graduates and above constituted 32 (32%), followed by secondary education 28 (28%), primary education 16 (16%), higher secondary education 16 (16%), and illiterate participants 8 (8%). With respect to monthly income, 34 (34%) earned INR 10,000–20,000, 28 (28%) earned INR 20,000–40,000, 22 (22%) earned <INR 10,000, and 16 (16%) earned >INR 40,000. Most participants belonged to nuclear families 64 (64%), while 36 (36%) were from joint families. (Table 1)

Table 2. Obstetric and postpartum characteristics (n = 100)

| Variable | Frequency n (%) |
|-------------------------------------|-----------------|
| Number of children | |
| One | 46 (46.0) |
| Two | 34 (34.0) |
| ≥Three | 20 (20.0) |
| Age of youngest child | |
| <3 months | 40 (40.0) |
| 3–6 months | 48 (48.0) |
| >6 months | 12 (12.0) |
| Mode of delivery | |
| Normal | 58 (58.0) |
| Caesarean section | 42 (42.0) |
| Current breastfeeding status | |
| Exclusive breastfeeding | 56 (56.0) |
| Mixed feeding | 44 (44.0) |

Nearly half of the participants had one child 46 (46%), while two children were reported by 34 (34%) and three or more children by 20 (20%). The age of the youngest child was 3–6 months in 48 (48%), <3 months in 40 (40%), and >6 months in 12 (12%). Normal vaginal delivery was reported in 58 (58%), whereas 42 (42%) had undergone caesarean section. Regarding breastfeeding status, exclusive breastfeeding was practiced by 56 (56%) followed by mixed feeding by 44 (44%). (Table 2)

Table 3. Knowledge and awareness regarding Lactational Amenorrhea Method (LAM) among Study participants (n = 100)

| Knowledge Variable | Yes n (%) | No n (%) |
|---|-----------|-----------|
| Heard about LAM | 34 (34.0) | 66 (66.0) |
| Knew LAM acts as a contraception | 26 (26.0) | 74 (74.0) |
| Baby should be <6 months | 30 (30.0) | 70 (70.0) |
| Requires exclusive breastfeeding | 28 (28.0) | 72 (72.0) |
| Amenorrhea required | 24 (24.0) | 76 (76.0) |
| Effectiveness >98% | 14 (14.0) | 86 (86.0) |
| Valid only up to 6 months | 22 (22.0) | 78 (78.0) |
| Effectiveness decreases after supplementary feeding | 18 (18.0) | 82 (82.0) |
| Works by suppressing ovulation | 16 (16.0) | 84 (84.0) |
| Another contraceptive is needed after LAM | 32 (32.0) | 68 (68.0) |

Only 34 (34%) participants had heard about LAM, and 26 (26%) knew that LAM acts as a contraceptive method. Knowledge regarding specific criteria was limited, as 30 (30%) knew that the baby should be less than 6 months old, 28 (28%) were aware of the need for exclusive breastfeeding, and 24 (24%) knew that amenorrhea is necessary. Awareness regarding effectiveness was poor; only 14 (14%) knew that LAM is more than 98% effective. Further, 22 (22%) knew that LAM is valid only up to 6 months, 18 (18%) were aware that effectiveness decreases after supplementary feeding, and 16 (16%) understood that LAM works by suppressing ovulation. About 32 (32%) knew that another contraceptive method is required after LAM. (Table 3)

Table 4. Attitude and practices towards LAM among Study participants (n = 100)

| Statement | Strongly Disagree n (%) | Disagree n (%) | Neutral n (%) | Agree n (%) | Strongly Agree n (%) |
|---------------------------------------|-------------------------|----------------|---------------|-------------|----------------------|
| LAM is safe | 12 (12.0) | 14 (14.0) | 26 (26.0) | 30 (30.0) | 18 (18.0) |
| Exclusive BF prevents pregnancy | 14 (14.0) | 16 (16.0) | 30 (30.0) | 26 (26.0) | 14 (14.0) |
| Husbands should support LAM | 6 (6.0) | 8 (8.0) | 18 (18.0) | 40 (40.0) | 28 (28.0) |
| LAM is convenient | 10 (10.0) | 12 (12.0) | 34 (34.0) | 28 (28.0) | 16 (16.0) |
| Health workers should educate couples | 4 (4.0) | 6 (6.0) | 14 (14.0) | 36 (36.0) | 40 (40.0) |
| LAM should be promoted | 6 (6.0) | 8 (8.0) | 20 (20.0) | 38 (38.0) | 28 (28.0) |
| Breastfeeding benefits mother & child | 2 (2.0) | 4 (4.0) | 10 (10.0) | 42 (42.0) | 42 (42.0) |
| Will support spouse to use LAM | 8 (8.0) | 10 (10.0) | 24 (24.0) | 34 (34.0) | 24 (24.0) |

Positive attitudes were observed among participants. Nearly 48 (48%) agreed or strongly agreed that LAM is safe, while 42 (42%) agreed or strongly agreed that exclusive breastfeeding prevents pregnancy. A large proportion 68 (68%) felt that husbands should support the use of LAM, and 44 (44%) considered LAM to be convenient. Health education was strongly supported, with 76 (76%) agreeing or strongly agreeing that health workers should educate couples, and 66 (66%) supporting promotion of LAM. Further, 84 (84%) acknowledged that breastfeeding benefits both mother and child, and 58 (58%) expressed willingness to support their spouse in using LAM. (Table 4)

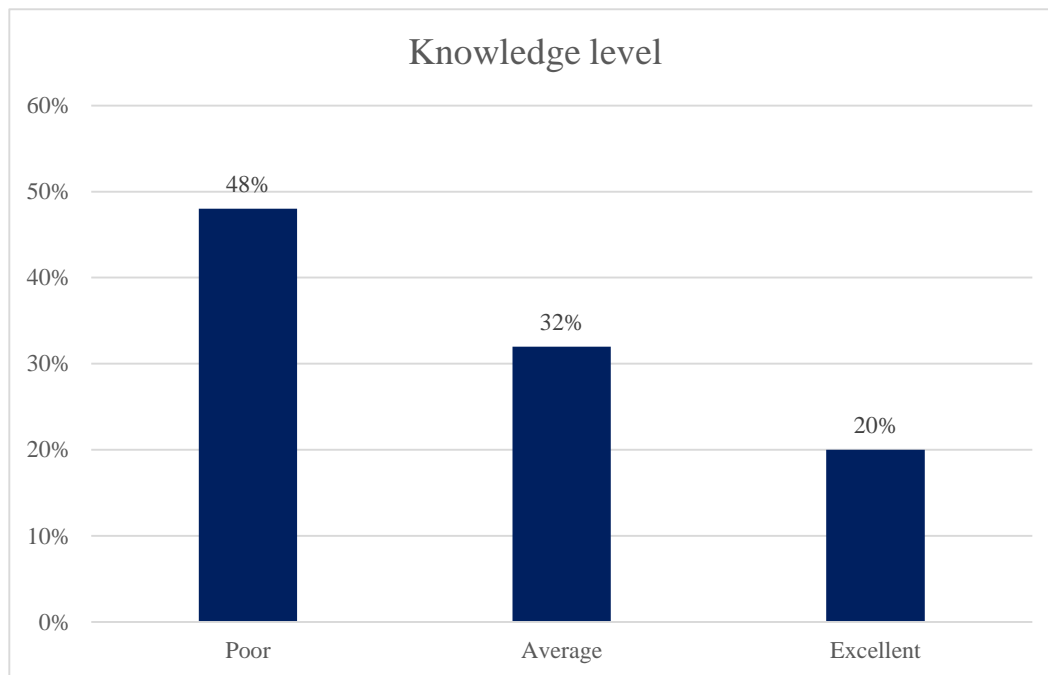


Figure 1: Overall knowledge level regarding LAM Study participants

The bar chart illustrates the distribution of participants based on their level of knowledge. A majority of participants were categorized as having poor knowledge (48%), indicating that nearly half of the study population lacks adequate understanding of the subject. Around 32% of participants demonstrated an average level of knowledge, suggesting a moderate level of awareness. In contrast, only 20% of participants were classified as having excellent knowledge, representing the smallest proportion. Overall, the figure highlights a predominance of low knowledge levels, with a gradual decrease from poor to excellent categories, indicating a need for targeted educational interventions to improve knowledge among the population.

Table 5: Association between knowledge level and socio-demographic variables Study participants (n = 100)

| Variable | | Poor n (%) | Average n (%) | Excellent n (%) | Chi-square | p value |
|----------------------|------------------|------------|---------------|-----------------|------------|---------------|
| Age (years) | 21–25 | 16 (53.3) | 8 (26.7) | 6 (20.0) | 4.62 | 0.48 |
| | 26–30 | 14 (38.9) | 14 (38.9) | 8 (22.2) | | |
| | 31–35 | 10 (45.5) | 6 (27.3) | 6 (27.3) | | |
| | >35 | 8 (66.7) | 4 (33.3) | 0 (0.0) | | |
| Education | Illiterate | 6 (75.0) | 2 (25.0) | 0 (0.0) | 22.36 | 0.003* |
| | Primary | 12 (75.0) | 4 (25.0) | 0 (0.0) | | |
| | Secondary | 16 (57.1) | 8 (28.6) | 4 (14.3) | | |
| | Higher Secondary | 8 (50.0) | 4 (25.0) | 4 (25.0) | | |
| | Graduate & Above | 6 (18.8) | 14 (43.8) | 12 (37.5) | | |
| Monthly Income (INR) | <10,000 | 14 (63.6) | 6 (27.3) | 2 (9.1) | 6.84 | 0.22 |
| | 10,000–20,000 | 18 (52.9) | 10 (29.4) | 6 (17.6) | | |
| | 20,000–40,000 | 10 (35.7) | 12 (42.9) | 6 (21.4) | | |
| | >40,000 | 6 (37.5) | 4 (25.0) | 6 (37.5) | | |
| Type of Family | Nuclear | 28 (43.8) | 22 (34.4) | 14 (21.9) | 1.68 | 0.41 |
| | Joint | 20 (55.6) | 10 (27.8) | 6 (16.7) | | |

Based on the composite score, poor knowledge was observed among 48 (48%) participants, average knowledge among 32 (32%), and excellent knowledge among 20 (20%). (Figure 1) Educational status showed a statistically significant association with knowledge level ($\chi^2 = 22.36, p = 0.003$), with higher education being associated with better knowledge levels. However, no statistically significant association was observed between knowledge level and age ($\chi^2 = 4.62, p = 0.48$), monthly income ($\chi^2 = 6.84, p = 0.22$), or type of family ($\chi^2 = 1.68, p = 0.41$). (Table 5)

DISCUSSION

Overview of Findings

This descriptive cross-sectional study evaluated the knowledge, awareness, and attitudes regarding the Lactational Amenorrhea Method (LAM) among 100 spouses of postpartum women attending a tertiary care centre in Chengalpatu district, Tamil Nadu. The findings revealed a substantial deficit in LAM knowledge: only 34% of participants had ever heard of LAM, and a mere 26% correctly identified it as a contraceptive method. Nearly half (48%) demonstrated poor overall knowledge, 32% showed average knowledge, and only 20% possessed good knowledge. These findings underscore a critical gap in male partner awareness regarding postpartum family planning in the Indian context.

Awareness of LAM as a Contraceptive Method

The awareness rate of 34% observed in this study is notably lower than figures reported from several comparable studies conducted globally. In a large facility-based cross-sectional study involving 3,148 postpartum women in Ethiopia, Eticha et al. reported that only 40.6% of participants correctly identified all three LAM criteria,¹⁰ indicating that even among women directly receiving postnatal services, LAM knowledge remains inadequate. Similarly, Abraha et al. in Aksum town, Tigray region, Ethiopia, documented that only 8.8% of postpartum women demonstrated adequate LAM knowledge,¹¹ a figure even lower than that found in the present study, reflecting extreme regional variation in LAM awareness in sub-Saharan Africa. The lower awareness levels among male spouses found in our study are not unexpected, given that men are systematically excluded from postnatal counselling sessions and targeted contraceptive education programmes in most healthcare settings, including India.

A study by Gebreslasie and Frazer conducted in the Tigray region of northern Ethiopia among 444 postpartum women found an overall LAM knowledge prevalence of 41.5%, which is significantly higher than the present study's findings.¹⁶ The disparity is likely attributable to the fact that postpartum women, by virtue of their direct involvement in breastfeeding and routine postnatal visits, are more likely to encounter LAM education than their male partners. Similarly, a hospital-based cross-sectional study from Uganda by Nalugo et al. reported that 54.3% of postnatal attendees were aware of LAM,¹⁷ further highlighting that the male partner population studied here represents a particularly underserved group with respect to family planning education.

Knowledge of the Three Bellagio Criteria

The three essential criteria for LAM efficacy — exclusive breastfeeding, infant age under six months, and maternal amenorrhea — were poorly understood in this study. Only 30% of participants knew the infant must be under six months of age, 28% recognised exclusive breastfeeding as a prerequisite, and 24% identified amenorrhea as a necessary condition. Awareness of LAM's contraceptive efficacy exceeding 98% was even lower, at just 14%. These granular knowledge deficits are clinically significant because inadequate understanding of any one criterion can lead to incorrect LAM practice and contraceptive failure.

Comparable criteria-specific knowledge deficits have been documented in other populations. A study by Hoyt-Austin et al. among nulliparous pregnant women in the United States found that approximately 60% of those intending to use LAM were unaware that exclusive breastfeeding was a mandatory criterion,¹² indicating that these knowledge gaps are not restricted to low-resource settings but represent a global challenge in LAM counselling. Labbok et al., in a landmark multicentre prospective trial conducted across eleven international sites, confirmed greater than 98% efficacy of LAM under standardised conditions,⁹ however, the same study noted that individual-level understanding of the Bellagio criteria was inconsistent across sites, paralleling the poor knowledge of efficacy seen in the present study. Gebreslasie and Frazer found that only 29.3% of postpartum women in their Ethiopian cohort were aware that amenorrhea is a criterion for LAM,¹⁶ closely mirroring the 24% reported in the present study despite these being different populations (postpartum women vs. male spouses). This convergence suggests that amenorrhea as a criterion is the least well-understood of the three Bellagio conditions across diverse settings. A study by Fabic and Choi, which assessed data quality of LAM use from the Demographic and Health Surveys across multiple countries, noted widespread conflation of any breastfeeding with exclusive breastfeeding, leading to overestimation of LAM eligibility;⁵ this misconception was also reflected in our study where only 28% correctly identified exclusive breastfeeding as a requirement, as opposed to breastfeeding in general.

Sociodemographic Predictors of LAM Knowledge

Educational status was the sole sociodemographic variable that showed a statistically significant association with LAM knowledge in this study ($\chi^2 = 22.36$, $p = 0.003$). Participants who were graduates or above performed markedly better than those with primary or no formal education. Specifically, 37.5% of graduates demonstrated good knowledge compared to 0% among illiterate participants, confirming education as a key enabler of health literacy and contraceptive awareness. This finding is consistent with multiple published studies. Eticha et al. reported that higher educational attainment was independently associated with LAM knowledge (AOR = 2.1, 95% CI 1.5–2.8) in Ethiopia.¹⁰ Similarly, Abraha et al. identified secondary education and above as a significant predictor of LAM knowledge among postpartum women.¹¹ A study from India by Sahoo et al. evaluating postpartum contraceptive awareness among women in Odisha noted that formal education beyond the secondary level was the strongest independent predictor of awareness of non-hormonal postpartum contraception,¹⁸ a finding that aligns with the gradient observed in the present study. The mechanism linking education to LAM knowledge likely reflects broader improvements in health literacy, media engagement, and receptiveness to health information, all of which are closely tied to formal schooling.

In contrast, age, monthly income, and family type (nuclear vs. joint) showed no statistically significant association with LAM knowledge in this study. The absence of an age effect is consistent with Eticha et al., who also found no significant relationship between age and LAM knowledge.¹⁰ The lack of income-related differences may reflect the uniformity of public health outreach in this tertiary hospital setting, where men of varying income levels are brought into contact with hospital services to a similar degree. The non-significant finding for family type differs from hypotheses about joint families providing greater intergenerational transmission of breastfeeding knowledge; this may warrant further investigation in subsequent studies with larger sample sizes.

Male Involvement in Postpartum Family Planning

A major distinguishing feature of this study is its exclusive focus on male spouses rather than postpartum women themselves. Male partner involvement in contraceptive decision-making has long been recognised as a crucial determinant of family planning uptake in South Asian settings. Bhan et al., in a qualitative study from Maharashtra, India, documented that postpartum women frequently required their husband's approval before adopting any contraceptive method,¹³ demonstrating the gatekeeping role that men play in reproductive choices. Yet, the present study confirms that the knowledge base enabling men to participate constructively in such decisions is severely lacking.

Parija et al. in a community-based study from rural Odisha, India, found that only 13.1% of men were active participants in family planning, and that educational level was the strongest predictor of male involvement.¹⁴ The World Health Organization's framework for male engagement in reproductive health explicitly recommends including male partners in antenatal and postnatal counselling sessions as a strategy to improve contraceptive uptake and reduce unintended pregnancies.¹⁹ Despite such global recommendations, facility-level practice continues to marginalise male partners from contraceptive education, as evidenced by the uniformly low knowledge levels observed in this study.

Shattuck et al. conducted a randomised controlled trial in Zambia evaluating a male-targeted intervention to encourage contraceptive uptake among couples.⁸ They found that men who received structured counselling were significantly more likely to encourage their partners to use modern contraception (RR 1.36, 95% CI 1.06–1.74). Translating such evidence to the Indian postpartum context, where LAM is a viable non-hormonal option aligned with cultural breastfeeding norms, presents an important opportunity to leverage the favourable attitudes observed in the present study.

Attitudes Towards LAM: A Positive Platform for Intervention

Despite widespread knowledge deficits, attitudes towards LAM in this study were notably positive. A substantial majority — 68% — agreed or strongly agreed that husbands should support their partners' use of LAM, and 76% endorsed the view that health workers should provide couple-centred LAM education. Moreover, 58% expressed willingness to actively support their spouse in using LAM, and 84% recognised the general benefits of breastfeeding for both mother and child. This attitudinal receptiveness is a critical asset that can be leveraged by healthcare providers to bridge the knowledge-attitude gap.

Comparable positive attitudes have been reported in the literature. Lanyo et al., in a cluster randomised controlled trial from Ghana, demonstrated that structured group antenatal care incorporating LAM education significantly improved awareness and knowledge of LAM among both women and their partners.¹⁵ The trial showed that couple attendance at structured group sessions resulted in a 2.4-fold increase in LAM awareness compared to conventional individual antenatal care, suggesting that the positive spousal attitudes documented in the present study could serve as an effective starting point for couple-level LAM education. Similarly, Van der Wijden and Manion, in a Cochrane systematic review, noted that LAM utilisation increases significantly when both partners are adequately counselled, reinforcing the case for couple-inclusive postnatal counselling.⁶

Pasha et al., in a multisite study across six low-income countries, found that unmet need for postpartum contraception remained high (ranging from 46% to 82% across sites) and was associated with inadequate counselling at the facility level.⁷ Integrating LAM into routine postnatal counselling — and explicitly including male partners — represents a low-cost, high-yield intervention to address this gap. Such an approach would capitalise on the high proportion of participants in this study who already support breastfeeding and are receptive to couple-oriented health education.

Breastfeeding Practices and Their Relevance to LAM Eligibility

In this study, 56% of the postpartum women whose husbands were interviewed were practising exclusive breastfeeding, and 48% of infants were between three and six months of age — the critical window during which LAM eligibility is most pertinent. Despite this substantial proportion of families with potentially LAM-eligible mothers, spousal awareness of LAM was profoundly limited. This underscores the missed opportunity for LAM counselling in the immediate postnatal period, a time when breastfeeding support and contraceptive discussions are both clinically indicated.

Victoria et al., in a comprehensive Lancet series on breastfeeding, emphasised that exclusive breastfeeding rates in South Asia remain lower than recommended, and that inadequate spousal and community support is a key barrier.⁴ The present study's finding that 44% of women were on mixed feeding — thereby falling outside LAM eligibility — reinforces the argument that improving male awareness of both breastfeeding benefits and LAM criteria could simultaneously improve breastfeeding rates and postpartum contraceptive coverage. Kennedy et al.'s original Bellagio Consensus statement stipulated that LAM success is predicated on consistent exclusive breastfeeding, which in turn depends heavily on household support systems including the spouse.³

Strengths and Limitations

This study has several strengths. It uniquely focuses on male spouses of postpartum women — a population rarely examined in LAM research — and provides both quantitative knowledge scores and attitudinal data from the same participants. The use of a bilingual (Tamil and English) pretested structured questionnaire ensured cultural and linguistic appropriateness. The study was conducted prospectively over a defined three-month period with a clearly delineated inclusion and exclusion criteria, enhancing internal validity.

However, several limitations must be acknowledged. The convenience sampling technique and relatively small sample size of 100 participants from a single tertiary care centre limit the generalisability of findings to the broader population. Social desirability bias may have inflated attitudinal scores, as participants may have responded more favourably on attitude questions than their actual behaviour would reflect. The cross-sectional design precludes causal inference. Additionally, since the study was conducted at a tertiary centre serving a specific district, findings may not reflect rural or primary care settings where LAM outreach is even more limited. Future studies with larger, community-based samples using multi-stage random sampling are needed to validate these findings.

Conclusion

The findings of this study have direct implications for postpartum care practice in India. First, LAM counselling should be systematically integrated into postnatal ward routines, with explicit protocols for inviting male partners to participate in contraceptive education sessions before discharge. Second, given that educational status is the principal predictor of LAM knowledge, counselling tools should be adapted to varying literacy levels, using visual aids and vernacular language educational materials for participants with lower educational attainment. Third, given the strongly positive attitudes observed despite poor knowledge, a brief structured educational intervention at the time of postnatal discharge — analogous to the group antenatal care model evaluated by Lanyo et al.¹⁵ — could efficiently convert receptive attitudes into informed LAM practice. Fourth, national family planning guidelines in India should be updated to explicitly mandate couple counselling for LAM as part of the postpartum contraceptive package.

REFERENCES

1. Conde-Agudelo A, Rosas-Bermúdez A, Kafury-Goeta AC. Birth spacing and risk of adverse perinatal outcomes. *JAMA*. 2006;295(15):1809–23.
2. World Health Organization. Report of a WHO Technical Consultation on Birth Spacing. Geneva: WHO; 2005.
3. Kennedy KI, Rivera R, McNeilly AS. Consensus statement on the use of breastfeeding as a family planning method. *Contraception*. 1989;39(5):477–96.
4. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet*. 2016;387(10017):475–90.
5. Fabric MS, Choi Y. Assessing the quality of data regarding use of the lactational amenorrhea method. *Stud Fam Plann*. 2013;44(2):205–21.
6. Van der Wijden C, Manion C. Lactational amenorrhea method for family planning. *Cochrane Database Syst Rev*. 2015;(10):CD001329.
7. Pasha O, Goudar SS, Patel A, Garcés A, Esamai F, Chomba E, et al. Postpartum contraceptive use and unmet need for family planning in five low-income countries. *BMC Public Health*. 2015;15:1218.
8. Shattuck D, Kerner B, Gilles K, Hartmann M, Ng'ombe T, Guest G. Encouraging contraceptive uptake by motivating men to communicate about family planning: the Malawi Male Motivator project. *Am J Public Health*. 2011;101(6):1089–95.
9. Labbok MH, Perez A, Valdes V, Sevilla F, Wade K, Laukaran VH, et al. The Lactational Amenorrhea Method (LAM): a postpartum introductory family planning method with policy and program implications. *Adv Contracept*. 1994;10(2):93–109.
10. Eticha TG, Girma S, Mamo G, Asefa F, Birhanu A, Taye B, et al. Knowledge of lactational amenorrhea method among postpartum women in Ethiopia: a facility-based cross-sectional study. *Sci Rep*. 2023;13(1):14916.
11. Abraha TH, Teferra AS, Gelagay AA, Welesamuel TG, Fisseha GK, Aregawi BG, et al. Knowledge and associated factors of lactational amenorrhea as a contraception method among postpartum women in Aksum town, Tigray Region, Ethiopia. *BMC Res Notes*. 2018;11(1):641.
12. Hoyt-Austin AE, Chen MJ, Iwuagwu C, Brown SD, Fix M, Kair LR, et al. Understanding of Lactational Amenorrhea as a Contraceptive Method Among U.S. Pregnant Women. *Breastfeed Med*. 2023;18(8):621–5.
13. Bhan N, Thomas EE, Kully G, Ghule M, Raj A, McDougall L, et al. A qualitative analysis of women's reproductive agency and postpartum family planning in Maharashtra, India. *PLoS One*. 2025;20(11):e0336103.
14. Parija PP, Pal A, Panigrahi SK, Thakur P, Pal R. Male involvement in family planning in a rural area of India. *J Family Med Prim Care*. 2022;11(5):1943–8.
15. Lanyo TN, Williams JEO, Ghosh B, Apetorgbor VEA, Kukula VA, Zielinski R, et al. Impact of group antenatal care on lactational amenorrhea method awareness and knowledge: a cluster randomized control trial. *PLoS One*. 2025;20(10):e0333074.
16. Gebreslasie KZ, Frazer AN. Use of lactational amenorrhea as a contraceptive method and its associated factors in Tigray region, Ethiopia: a cross-sectional study. *Contracept Reprod Med*. 2017;2:9.
17. Nalugo MK, Wandabwa JN, Kiondo P, Lutalo T. Awareness and use of the Lactational Amenorrhea Method as a postpartum contraceptive among women in Mulago Hospital, Uganda. *Afr Health Sci*. 2021;21(3):1053–61.
18. Sahoo H, Acharya A, Naik BN. Postpartum contraceptive awareness and practice among women in Odisha, India. *J Family Welfare*. 2020;66(1):42–50.
19. World Health Organization. Programming strategies for postpartum family planning. Geneva: WHO; 2013.
20. Conde-Agudelo A, Belizan JM, Breman R, Brockman SC, Rosas-Bermúdez A. Effect of the interpregnancy interval after an abortion on maternal and perinatal health in Latin America. *Int J Gynaecol Obstet*. 2005;89(Suppl 1):S34–40.