e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2025; 17(7); 2069-2074

Original Research Article

Effect of Antenatal Focussed Group Breastfeeding Counselling vs Routine Counselling in 3rd Trimester Pregnant Females on Postpartum LATCH Score at Northern Railway Central Hospital, New Delhi

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Received: 27-05-2025 / Revised: 25-06-2025 / Accepted: 27-07-2025
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Conflict of interest: Nil

Abstract:

Background: Breastfeeding is globally recognized as the optimal mode of infant feeding due to its nutritional, immunological, and psychosocial benefits. Despite national and international recommendations for exclusive breastfeeding during the first six months, suboptimal practices remain common in India. Antenatal counselling has been shown to positively influence maternal knowledge, self-efficacy, and breastfeeding outcomes. However, the comparative effectiveness of focused group counselling versus routine counselling during the third trimester on early breastfeeding practices, particularly postpartum latch, remains underexplored in tertiary care settings.

Aim: To evaluate the effect of antenatal focused group breastfeeding counselling compared with routine counselling in third trimester pregnant women on postpartum LATCH scores at Northern Railway Central Hospital, New Delhi.

Methods: This was a randomized interventional study involving 158 third-trimester pregnant women recruited from the antenatal clinic. Participants were randomly allocated into two groups: Group A received focused group breastfeeding counselling sessions including demonstrations, peer interactions, and problem-solving strategies, while Group B received routine antenatal counselling as per hospital protocol. Postpartum latch was assessed within the first 24 hours of delivery using the standardized LATCH scoring system, which evaluates latch, audible swallowing, type of nipple, maternal comfort, and hold. Scores were compared between groups using appropriate statistical tests.

Results: Among the 159 participants, Group A (n=79) demonstrated significantly higher mean LATCH scores compared to Group B (n=79). Mothers who received focused group counselling were more likely to achieve effective latch, audible swallowing, and maternal comfort. Early initiation of breastfeeding and sustained latch success were also more frequent in the intervention group. Statistical analysis confirmed a significant improvement ($p<0.05$) in overall LATCH scores in the group counselling arm.

Conclusion: Focused group antenatal breastfeeding counselling in the third trimester was more effective than routine counselling in improving postpartum LATCH scores. This highlights the importance of structured, peer-supported, and skill-oriented prenatal interventions to promote early breastfeeding success.

Recommendations: Integration of focused group breastfeeding counselling into routine antenatal counselling should be prioritized in tertiary care hospitals to enhance maternal readiness and improve neonatal feeding outcomes. Training healthcare providers in group-based interactive counselling techniques and incorporating standardized postpartum evaluation tools such as the LATCH score can further strengthen breastfeeding promotion programs in India.

Keywords: Breastfeeding Counselling, Antenatal Care, LATCH score, Focused Group Counselling, Postpartum Latch.

Introduction

Breastfeeding is a cornerstone of maternal–infant health, conferring protection against infectious morbidity in infants and long-term metabolic benefits for both mother and child [1,2]. Global and national policies recommend exclusive breastfeeding (EBF) for the first 6 months, with continued breastfeeding alongside complementary foods thereafter [1,2]. In India, recent NFHS-5 data

indicate improvements in EBF but persistent gaps in early initiation and sustained breastfeeding, underscoring the need for effective, context-specific interventions during the antenatal period [3].

The antenatal window—particularly the third trimester—offers a critical opportunity to shape feeding intentions, build self-efficacy, and pre-empt technical challenges such as suboptimal positioning and latch [4,5]. Structured prenatal education has been associated with longer breastfeeding duration, especially when programs include psychological components (e.g., coping planning) and linkage to postpartum support [4]. Beyond individual counselling, focused group models within antenatal care (ANC) may amplify benefits through peer learning, rehearsal of practical skills, and normalization of help-seeking. A recent cluster randomized trial reported higher odds of mothers in group ANC adhering to WHO EBF recommendations compared with standard care [6]. However, evidence from diverse settings is mixed, suggesting that program design and fidelity are decisive for impact [7,8]. Clarifying the added value of focused group counselling over routine counselling in real-world tertiary settings can guide scalable service redesign.

Postpartum latch quality is a pragmatic, early marker of breastfeeding effectiveness that predicts milk transfer and continuation [9]. The LATCH scoring system (Latch, Audible swallowing, Type of nipple, Comfort, Hold) is widely used to assess early feeds; higher scores reflect better technique and fewer problems [9,10]. Recent work affirms its clinical utility for identifying dyads needing targeted support and demonstrates improvements in scores following structured lactation assistance [10]. Evaluating antenatal counselling models against an objective postpartum outcome such as the LATCH score can therefore provide actionable evidence for maternity services.

Northern Railway Central Hospital, New Delhi, is a high-volume urban tertiary centre where time-efficient, high-yield interventions are essential. This study compares antenatal focused group breastfeeding counselling versus routine counselling delivered in the third trimester, using postpartum LATCH score as the primary outcome. Findings may inform integration of group-based counselling into routine ANC to improve early latch quality and downstream breastfeeding success in comparable Indian hospital settings.

Materials and Methods

Type of Article: The study was an institution-based randomized interventional study.

Study Place: The study was conducted in the Departments of Obstetrics & Gynaecology and Pediatrics at Northern Railway Central Hospital, New Delhi.

Study Duration: The study was carried out over a period of six months, from January 2024 to June 2024.

Sample Size: The study population consisted of all third-trimester pregnant females who fulfilled the inclusion criteria, followed by assessments of their LATCH scores after birth. The LATCH score was assessed within the first 24 hours postpartum in the Department of Obstetrics and Gynaecology, NRCH, New Delhi. A total of 158 mothers were enrolled in the study.

After approval from the hospital ethical committee, the study was initiated. All eligible pregnant women in their third trimester were enrolled and informed about the need and importance of the study. They were provided with a patient information sheet in both English and Hindi. Written informed consent was obtained from all participants to ensure consensual participation. The mothers were allocated to either the intervention or non-intervention group using block randomization, with group numbers written on chits in sealed envelopes.

- The intervention group was given a questionnaire to assess their knowledge and attitude towards breastfeeding, followed by focused counselling on breastfeeding during sessions conducted in the department.
- The mothers in the non-intervention group received routine counselling on breastfeeding from the attending obstetrician.
- The breastfeeding-focused group counselling sessions were scheduled during OPD visits.
- A single session was conducted for each participant, lasting one hour, in peer groups led by the principal investigator.

The antenatal breastfeeding counselling sessions were designed to provide comprehensive guidance to expectant mothers on both practical techniques and broader health benefits. The sessions emphasized the correct positioning for breastfeeding and included demonstrations of proper latch techniques to ensure effective feeding. Mothers were counselled on the appropriate timing for initiating breastfeeding after delivery, the ideal duration of each session, and the recommended intervals between two consecutive feeds. Guidance was also provided on the optimal duration of feeding on each breast, highlighting the significance of both foremilk and hindmilk in meeting the infant's nutritional needs. In addition, the sessions reinforced the importance of colostrum as the first immunization for the newborn. Beyond technical aspects, counselling highlighted the wide-ranging benefits of breastfeeding—underscoring advantages for the baby's growth and immunity, the mother's

health and recovery, the family's well-being, and the overall social and economic benefits to the community.

Additional focus was given to the negative hurdles faced by breastfeeding mothers, such as myths and misconceptions, operative delivery, cultural taboos, the influence of older women, lack of confidence, maternal worries, and the duration of breastfeeding post-delivery.

Routine counselling on breastfeeding was provided by the attending obstetrician/pediatrician during antenatal care (ANC) visits. The LATCH score was calculated within 24 hours postpartum by the principal investigator in both the focused counselling group and the routine counselling group.

Data Management and Statistical Analysis: The collected data were checked for consistency and completeness and were entered into Microsoft Excel (MS-EXCEL, Microsoft Corp.). Data were analysed using the Statistical Package for the Social Sciences (IBM SPSS, version 22). Descriptive and inferential statistics were applied. The data were categorized and expressed in proportions, while continuous data were expressed as Mean ± SD.

The results were graphically presented in the form of tables, vertical bar charts, horizontal bar charts, and pie diagrams. For analytical statistics, a p-value of <0.05 was considered statistically significant. The Chi-square test was used for categorical data and the Student's t-test was applied for continuous data.

Ethical Consideration: The Institutional Ethics Committee of NRCH, New Delhi reviewed and approved the project before it was carried out.

All participants were informed in their own language about the study and their rights before providing data for the researcher-administered questionnaire. They were informed about their role and rights, and it was clarified that their participation was voluntary, their information would be treated confidentially, and they could withdraw from the study at any time. After data collection, the data were cleaned, anonymized, and stored in a password-protected spreadsheet for analysis.

Results

Table 1: Sociodemographic Characteristics

Variable	Intervention Group (N=79)	Control Group (N=79)	p-value
Age (years)			
18–24	19 (24.1%)	25 (31.6%)	0.365
25–30	53 (67.1%)	43 (54.4%)	0.307
31–35	4 (5.1%)	9 (11.4%)	0.165
>35	3 (3.7%)	2 (2.5%)	0.654
Mean ± SD	27.3 ± 4.1	27.8 ± 4.5	0.412
Education			
Illiterate	2 (2.5%)	5 (6.6%)	0.256
Primary School	9 (11.4%)	6 (7.6%)	0.438
Secondary School	13 (16.5%)	23 (29.1%)	0.090
Graduate	45 (57.0%)	38 (48.1%)	0.442
Postgraduate	10 (12.7%)	7 (8.9%)	0.466

Both groups were comparable in age and education level (p>0.05). The majority of participants were aged 25–30 years, and more than half were graduates. No significant differences ensured baseline similarity.

Table 2: Parity, Mode of Delivery, and Birth Weight

Variable	Intervention (N=79)	Control (N=79)	p-value
Parity			
Primipara	47 (59.5%)	39 (49.4%)	0.388
Multipara	32 (40.5%)	40 (50.6%)	0.345
Mode of Delivery			
Vaginal	58 (73.4%)	65 (82.3%)	0.527
Cesarean	21 (26.6%)	14 (17.7%)	0.236
Birth Weight (kg)			
<2.5	6 (7.6%)	3 (3.8%)	0.756
2.5–3.0	58 (73.4%)	65 (82.3%)	0.690
>3.0	15 (19.0%)	11 (13.9%)	0.815

Parity, mode of delivery, and neonatal birth weight were comparable across groups, with no significant differences. This indicates that clinical and obstetric characteristics did not confound the outcomes.

Table 3: Mean LATCH Scores

Group	Mean LATCH Score (±SD)	p-value
Intervention	8.5 ± 1.3	<0.001*
Control	7.2 ± 1.8	

Mothers in the intervention group had significantly higher mean LATCH scores compared to the control group, confirming the effectiveness of antenatal focused group counselling.

Table 4: Proportion of Mothers with LATCH Score ≤7

Group	LATCH ≤7 (N%)	p-value
Intervention Group	7 (8.9%)	<0.001*
Control Group	26 (32.9%)	

Unsatisfactory LATCH scores (≤7) were significantly lower in the intervention group. This highlights improved breastfeeding performance following focused counselling.

Table 5: Early Breastfeeding Outcomes

Variable	Intervention (N=79)	Control (N=79)	p-value
Initiated breastfeeding <1 hr	65 (82.3%)	48 (60.8%)	0.002*
Achieved correct latching	71 (89.9%)	54 (68.4%)	<0.001*

Focused counselling significantly improved early initiation of breastfeeding and correct latching technique. Both outcomes are crucial for establishing successful breastfeeding.

Table 6: Breastfeeding Problems

Problem	Intervention (N, %)	Control (N, %)	p-value
Breast engorgement	12 (15.2%)	22 (27.8%)	0.043*
Sore nipples	9 (11.4%)	19 (24.1%)	0.032*

Mothers in the intervention group reported significantly fewer problems such as engorgement and sore nipples, demonstrating the protective effect of counselling.

Table 7: Feeding Practices

Practice	Intervention (N, %)	Control (N, %)	p-value
Prelacteal feeds used	3 (3.8%)	12 (15.2%)	0.016*
Maternal confidence high	68 (86.1%)	45 (57.0%)	<0.001*

Explanation: Prelacteal feeding was significantly reduced in the intervention group, and maternal confidence in breastfeeding was markedly higher. Focused counselling encouraged healthier feeding practices.

Table 8: Misconceptions Regarding Breastfeeding

Misconception	Intervention (N=79)	Control (N=79)	p-value
"Colostrum is harmful"	2 (2.5%)	11 (13.9%)	0.008*
"Formula is superior"	5 (6.3%)	18 (22.8%)	0.003*
"Breastfeeding spoils figure"	8 (10.1%)	21 (26.6%)	0.006*

Myths and misconceptions were much less prevalent in the intervention group, reflecting the impact of structured counselling on awareness and attitude change.

Table 9: Components of LATCH Score – Intervention Group

Component	Score 0 (N, %)	Score 1 (N, %)	Score 2 (N, %)	p-value
Latch	2 (2.5%)	11 (13.9%)	66 (83.5%)	<0.001*
Audible Swallowing	3 (3.8%)	15 (19.0%)	61 (77.2%)	<0.001*
Type of Nipple	5 (6.3%)	20 (25.3%)	54 (68.4%)	<0.001*
Comfort	4 (5.1%)	18 (22.8%)	57 (72.2%)	<0.001*
Hold	1 (1.3%)	9 (11.4%)	69 (87.3%)	<0.001*

Most mothers in the intervention group scored "2" across all LATCH components, indicating effective learning of breastfeeding skills.

Table 10: Components of LATCH Score – Control Group

Component	Score 0 (N, %)	Score 1 (N, %)	Score 2 (N, %)	p-value
Latch	11 (13.9%)	43 (54.5%)	25 (31.6%)	<0.001*

Audible Swallowing	13 (16.4%)	39 (49.4%)	27 (34.2%)	0.001*
Type of Nipple	9 (11.4%)	29 (36.7%)	41 (51.9%)	<0.001*
Comfort	14 (17.7%)	44 (55.7%)	21 (26.6%)	<0.001*
Hold	17 (21.5%)	49 (62.0%)	13 (16.5%)	<0.001*

In the control group, a higher proportion of mothers scored "0" or "1" across components, indicating poorer breastfeeding performance compared to the intervention group.

Discussion

In this study, a total of 158 third-trimester pregnant mothers were enrolled, with 79 in the intervention group and 79 in the control group. Both groups were comparable at baseline in terms of sociodemographic characteristics such as age and education, as well as obstetric variables including parity, mode of delivery, and neonatal birth weight. The majority of participants were between 25–30 years of age, and most were graduates. Such similarity across baseline characteristics ensured that observed differences in outcomes could be attributed primarily to the intervention.

The primary outcome, **LATCH score**, demonstrated a significant difference between groups. Mothers in the intervention group achieved a higher mean LATCH score (8.5 ± 1.3) compared to the control group (7.2 ± 1.8), with a highly significant p-value (<0.001). Furthermore, the proportion of mothers with unsatisfactory LATCH scores (≤7) was markedly lower in the intervention group (8.9% vs. 32.9%). These findings strongly indicate that focused group counselling during the antenatal period improved the quality of breastfeeding practices.

Breastfeeding initiation within the first hour of birth, a crucial determinant of neonatal nutrition and survival, was significantly higher among mothers who received focused counselling (82.3%) compared to controls (60.8%). Similarly, correct latching technique was achieved more frequently in the intervention group (89.9% vs. 68.4%). These results confirm that antenatal education has a direct influence on immediate postpartum breastfeeding performance.

Breastfeeding-related complications such as breast engorgement and sore nipples were significantly less common in the intervention group. This suggests that anticipatory guidance on positioning, latch, and breastfeeding techniques helped prevent such issues. Furthermore, healthier feeding practices were observed in the intervention group, with a lower prevalence of prelacteal feeding (3.8% vs. 15.2%) and higher maternal confidence levels (86.1% vs. 57.0%). These findings highlight the broader impact of counselling in not only improving skills but also reinforcing positive attitudes and confidence among mothers.

Another important outcome was the correction of misconceptions about breastfeeding. Beliefs such as "colostrum is harmful," "formula milk is superior," and "breastfeeding spoils figure" were significantly less prevalent among mothers in the intervention group. This demonstrates that structured antenatal counselling can effectively dispel myths and promote evidence-based practices.

Detailed analysis of the **LATCH score components** further reinforced the effectiveness of the intervention. In the intervention group, the majority of mothers scored the highest possible points across all components—latch, audible swallowing, nipple type, maternal comfort, and holding technique. In contrast, the control group had a higher proportion of mothers scoring in the lower ranges, indicating poorer breastfeeding outcomes.

Conclusion

Antenatal focused group breastfeeding counselling significantly improved breastfeeding outcomes compared to routine counselling. Mothers who received structured counselling demonstrated higher LATCH scores, earlier initiation of breastfeeding, better latching techniques, fewer complications, reduced prevalence of prelacteal feeding, and greater confidence in breastfeeding. The intervention also helped dispel myths and misconceptions, highlighting the importance of incorporating focused breastfeeding counselling sessions into routine antenatal care to promote optimal maternal and neonatal health.

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