

Original Research Article

EFFICACY OF COUNSELLING IN IMPROVING LATCH SCORE AND SUCCESSFUL BREASTFEEDING - A PROSPECTIVE OBSERVATIONAL STUDY

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ABSTRACT

Background: Breastfeeding is essential for optimal neonatal growth and maternal health, yet many mothers face difficulties in establishing effective breastfeeding. This study aimed to evaluate the efficacy of structured counselling in improving LATCH scores and breastfeeding success among postnatal mothers.

Materials and Methods: This prospective observational study was conducted on 250 mother–infant dyads. Mothers with gestational age ≥ 37 weeks, singleton neonates delivered by caesarean section were included. LATCH score was assessed on Day 1 of life (Pre-intervention). Structured counselling with video-assisted breastfeeding education (UNICEF-based demonstrations) was provided daily for three days. Post-intervention LATCH score was assessed on Day 3. Data were analysed using SPSS version 21; $p < 0.05$ was considered significant.

Results: The mean maternal age was 27.15 ± 4.04 years. Most mothers were multiparous (63.6%) while 36.4% were primiparous. Prevalence of LBW was 42.4%. The gender distribution was relatively balanced with 50.8% males and 49.2% females. Following counselling LATCH scores increased from 30.4% to 64.4% ($p < 0.0001$). Mean total LATCH score improved from 5.79 ± 2.11 to 7.46 ± 2.58 ($p < 0.001$).

Conclusion: The LATCH scoring system is a reliable and practical tool for identifying problems in breastfeeding technique and monitoring progress. The present study confirms that structured counselling with lactation support significantly improves LATCH scores and breastfeeding success. Routine incorporation of breastfeeding counselling into postnatal care can strengthen breastfeeding practices and improve overall maternal and neonatal outcomes.

Keywords: Breastfeeding counselling, LATCH score, postpartum mothers, caesarean section, neonatal outcomes.

INTRODUCTION

Breastfeeding plays a crucial role in the health, growth and development of babies and has benefits for mothers too. It also promotes the emotional relationship, or bonding between the mother and infant.^[1] The World Health Organization (WHO) and UNICEF recommend exclusive breastfeeding for the first six months of life, followed by continued breastfeeding along with appropriate complementary foods up to two years of age or beyond. However, successful breastfeeding is not always spontaneous, as factors such as maternal fatigue, post-caesarean pain, inadequate latch technique, and limited family

or healthcare support may hinder effective feeding and lead to early discontinuation. In this regard, structured breastfeeding counselling plays a key role in improving maternal knowledge, breastfeeding technique, and continuation rates.^[3]

The LATCH score is a validated tool used to assess breastfeeding effectiveness by evaluating latch, audible swallowing, nipple type, maternal comfort, and positioning. Higher scores indicate successful breastfeeding, while lower scores help identify mothers needing early counselling. Breastfeeding is a learned skill, and post-caesarean mothers often face challenges such as pain, delayed initiation, and anxiety. Structured breastfeeding counselling

improves technique, confidence, and breastfeeding success. The Baby-Friendly Hospital Initiative (BFHI) also promotes early skin-to-skin contact, rooming-in, and breastfeeding counselling to enhance breastfeeding outcomes.^[4]

Video-assisted breastfeeding education is an effective supplement to conventional counselling, providing clear visual demonstrations of correct positioning, latch, and infant feeding cues. Studies have shown that combining video education with individualized counselling improves maternal knowledge, confidence, breastfeeding techniques, LATCH scores, and breastfeeding duration compared with counselling alone. This cost-effective approach is particularly valuable in resource-limited settings, making it a practical strategy to enhance breastfeeding success, especially among post-caesarean mothers.^[5,6] In view of persistent breastfeeding challenges, especially among post-caesarean mothers, this study aims to evaluate the efficacy of counselling in improving LATCH scores and successful breastfeeding outcomes.

MATERIALS AND METHODS

After obtaining Institutional Ethical Committee approval and written informed consent from the patients, this prospective observational study was conducted in the Department of Paediatrics, at tertiary care hospital over a period of 18 months with a sample size of 250 mother–infant dyads. The study included mothers with gestational age ≥ 37 weeks who had singleton neonates delivered by caesarean section and without any complications at the time of delivery. Newborns of mothers who were sick and unable to breastfeed, those admitted to the neonatal intensive care unit, and mothers who were not willing to give informed consent were excluded from the study.

The socio-demographic data was collected using a semi-structured questionnaire through interview method. All enrolled mothers received structured breastfeeding counselling, which included video-assisted education using breastfeeding demonstration videos sourced from UNICEF depicting correct latch

and positioning techniques. Counselling sessions were conducted daily after morning rounds in a dedicated breastfeeding guidance room attached to the postnatal ward, with mothers receiving group counselling.

LATCH score evaluates five components:

1. L-how well the infant latches onto the breast.
2. A-the amount of audible swallowing noted.
3. T-type of nipple.
4. C-maternal comfort during feeding.
5. H-the amount of help the mother needs to hold her infant to the breast.

The total score ranges from 0 to 10; the higher the score, the more the chances of successful breastfeeding. The LATCH score of 0-3 is regarded as poor, 4-7 as moderate, and 8-10 as good. LATCH score questionnaire was used to assess the effectiveness of the visual intervention tool. LATCH Score on Day1 (Pre-counselling) and Day 3 (Post-counselling) were assessed.

Statistical Analysis: IBM SPSS Version 21 was used for statistics. The data was collected and entered in Microsoft Excel sheet and then statistically analyzed using SPSS Version 20.0. Continuous variables were expressed as mean $\pm$ SD and compared using One-Way ANOVA. The categorical variables were summarized as frequencies and percentages and compared using Chi-Square or Fisher exact test. P value < 0.05 consider significant.

RESULTS

During the study period, a total of 250 mother-infant dyads were included in the study. Most participants were in the age group of 19–30 years (82.4%), with a relatively higher proportion having completed higher secondary education (38.4%). The majority were homemakers (71.6%). Joint family systems were more common (58.4%) compared to nuclear families (41.6%). In terms of parity, multiparous mothers constituted a higher proportion (63.6%) than primiparous mothers (36.4%). The majority of mothers had erect nipples (72.4%), which is considered favourable for breastfeeding as shown in [Table 1].

Table 1: Sociodemographic Profile of Mothers (n = 250)

Parameter	Category	Frequency	Percentage
Age (years)	19–25	105	42.0
	26–30	101	40.4
	31–35	35	14.0
	>35	9	3.6
Education	No formal education	11	4.4
	Primary (up to 5th standard)	19	7.6
	Secondary (10th standard)	63	25.2
	Higher secondary (12th standard)	96	38.4
	Graduate	48	19.2
Occupation	Postgraduate	13	5.2
	Homemakers	179	71.6
Monthly Family Income (INR)	Employed	71	28.4
	<10,000	66	26.4
	10,000–20,000	123	49.2
	>20,000	61	24.4
	Lower	24	9.6

Socio-economic (Kuppuswamy)	Status	Upper lower	73	29.2
		Lower middle	84	33.6
		Upper middle	69	27.6
		Upper	0	0.0
Type of Family	Joint		146	58.4
	Nuclear		104	41.6
Parity	Primi		91	36.4
	Multi		159	63.6
Condition of Nipple	Erect Nipple		181	72.40
	Flat nipple		29	11.60
	Inverted nipple		20	8.00
	Sore nipple		11	4.40
	Cracked nipple		09	3.60

There was a significant improvement in LATCH scores following breastfeeding counselling in postnatal caesarean mothers as shown in [Table 2].

Table 2: LATCH Score Before and After Counselling in the Postnatal Caesarean Mothers

LATCH Score Category	Postnatal Caesarean Mothers (n=250)		P value
	Before	After	
Poor (0–3)	56 (22.4%)	20 (8.0%)	<0.0001
Moderate (4–7)	118(47.2%)	69(27.6%)	<0.0001
Good (8–10)	76 (30.4%)	161(64.4%)	<0.00001
Total	250 (100.0%)	250 (100.0%)	—

The mean scores of all individual LATCH components improved significantly after breastfeeding counselling. The total mean LATCH score increased from 5.79 ± 2.11 before intervention to 7.46 ± 2.58 after intervention ($p < 0.001$). Significant

improvements were observed in latch, audible swallowing, maternal comfort, and hold ($p < 0.01$), while the type of nipple score also showed a modest but statistically significant improvement ($p = 0.049$), [Table 3].

Table 3: Scores of individual components of LATCH scoring System after delivery (N=250 mother-infant Dyads).

Component	Pre-Intervention Mean $\pm$ SD	Post-Intervention Mean $\pm$ SD	P value
Latch	1.08 ± 0.64	1.37 ± 0.67	0.000
Audible Swallowing	0.83 ± 0.74	1.11 ± 0.84	0.000
Type of Nipple	1.35 ± 0.49	1.44 ± 0.53	0.049
Comfort	0.98 ± 0.76	1.33 ± 0.75	0.000
Hold	1.21 ± 0.75	1.42 ± 0.80	0.003
Total LATCH Score	5.79 ± 2.11	7.46 ± 2.58	0.000

[Table 4] presents a comparative analysis of preintervention and postintervention LATCH scores across various socio-demographic factors. A

statistically significant improvement (p -value < 0.001) was observed in all categories after the counselling intervention.

Table 4: Comparison of mean preintervention and postintervention LATCH scores with respect to socio-demographic characteristics of mothers

Factors		Preintervention LATCH Score	Postintervention LATCH Score	p-value
Parity	Primi (n=91)	7.28 ± 1.12	8.75 ± 0.83	0.000
	Multi (n=159)	7.39 ± 0.76	9.23 ± 0.68	0.000
Mother's age (years)	<30 (n=206)	7.25 ± 0.88	8.78 ± 0.73	0.000
	>30 (n=44)	7.39 ± 0.93	8.96 ± 0.71	0.000
Education of mothers	Basic Education (≤ 10 th standard) (n=93)	7.25 ± 1.22	8.78 ± 0.66	0.000
	Higher Education (> 10 th standard) (n=157)	7.38 ± 0.71	8.90 ± 0.76	0.000
Occupation	Homemakers (n=179)	7.34 ± 0.87	8.91 ± 0.74	0.000
	Employed (n=71)	7.32 ± 0.96	8.89 ± 0.72	0.000
Type of family	Joint (n=146)	7.47 ± 0.77	8.95 ± 0.75	0.000
	Nuclear (n=104)	7.27 ± 0.95	8.86 ± 0.73	0.000
Socio-economic status	Lower (n=24)	7.36 ± 0.61	8.86 ± 0.86	0.000
	Upper lower (n=73)	7.27 ± 0.91	8.94 ± 0.72	0.000
	Lower middle (n=84)	7.44 ± 0.89	8.92 ± 0.75	0.000
	Upper middle (n=69)	7.32 ± 0.91	8.89 ± 0.76	0.000
Condition of nipple	Normal condition (n=181)	7.44 ± 0.84	8.96 ± 0.72	0.000
	Abnormal condition (n=69)	7.28 ± 0.96	8.78 ± 0.75	0.000

DISCUSSION

The present study included 250 mothers with a mean maternal age of 27.15 ± 4.04 years, and the majority belonged to the 19–25 years (42.0%) and 26–30 years (40.4%) age groups. Most mothers had attained higher secondary education (38.4%), and the majority were homemakers (71.6%). In terms of parity, a higher proportion of mothers were multiparous (63.6%) compared to primiparous mothers (36.4%). These findings are consistent with previous studies done by Divya R et al,^[6] Krishna PV et al,^[7] and Yadav N et al.^[8] The majority of mothers had erect nipples (72.4%), which are favourable for effective breastfeeding, while 11.6% had flat nipples and 8% had inverted nipples, both of which may interfere with proper latch and breastfeeding success. Additionally, 4.4% reported sore nipples and 3.6% had cracked nipples, conditions often associated with poor latch, pain, and increased risk of breastfeeding discontinuation. Similar findings have been reported in previous studies.^[9,10]

The majority of neonates were born at term (89.2%), while 10.8% were post-dated, indicating a predominantly term-based delivery pattern, which is consistent with findings of Pramodita et al.^[11] The gender distribution was nearly equal, with 50.8% males and 49.2% females, which aligns with the results of Krishna PV et al,^[7] and Halgar K et al.^[12] Regarding birth weight, a considerable proportion of neonates (42.4%) had low birth weight (<2.5 kg), indicating an important neonatal health concern, and similar observations were reported by Halgar K et al.^[12]

The LATCH scoring system is a validated tool used to assess key components of breastfeeding, including latch, swallowing, nipple type, comfort, and maternal support, and is useful for early identification of breastfeeding difficulties and timely intervention. In the present study involving 250 mother–infant dyads, a significant improvement in LATCH scores was observed following counselling, with low scores decreasing from 22.4% to 8%, moderate scores from 47.2% to 27.6%, and high scores increasing from 30.4% to 64.4% ($p < 0.0001$). Similar improvements have been reported in previous studies conducted by Gautam A et al,^[5] Divya R et al,^[6] Krishna PV et al,^[7] Yadav N et al,^[8] and Halgar K et al.^[12] All components of the LATCH scoring system showed significant improvement after structured breastfeeding counselling, indicating overall enhancement in breastfeeding technique and effectiveness. The total LATCH score also showed a significant rise from 5.79 ± 2.11 to 7.46 ± 2.58 ($p = 0.000$), confirming the overall effectiveness of counselling. These findings are consistent with previous studies. Gautam A et al,⁵ Divya R et al,⁶ and Halgar K et al.^[12]

Targeted breastfeeding counselling has a strong positive impact on breastfeeding outcomes, particularly among those undergoing caesarean

delivery who often face early initiation difficulties. Similar findings are reported in study done by Lingala SD et al,^[10] and Bhandari et al.^[13]

The comparison of pre- and post-intervention LATCH scores across maternal characteristics showed a statistically significant improvement in all subgroups ($p < 0.001$), confirming the effectiveness of structured breastfeeding counselling irrespective of sociodemographic variation. Multiparous mothers had significantly higher LATCH scores than primiparous mothers both before (7.39 ± 0.76 vs. 7.28 ± 1.12) and after intervention (9.23 ± 0.68 vs. 8.75 ± 0.83). Mothers aged >30 years showed higher scores compared to those ≤ 30 years in both pre-intervention (7.39 ± 0.93 vs. 7.25 ± 0.88) and post-intervention phases (8.96 ± 0.71 vs. 8.78 ± 0.73). Similarly, mothers with education >10 th standard had higher LATCH scores than those with lower education levels in both pre- and post-intervention assessments. Occupation-wise, homemakers and employed mothers showed comparable scores with no significant difference. Mothers from joint families had higher LATCH scores than those from nuclear families both before (7.47 ± 0.77 vs. 7.27 ± 0.95) and after intervention (8.95 ± 0.75 vs. 8.86 ± 0.73). Across socioeconomic categories, LATCH scores improved significantly in all groups with no major intergroup variation after intervention. Additionally, mothers with normal nipple conditions had higher LATCH scores compared to those with abnormal nipples in both phases. These findings are consistent with previous studies done by Gautam A et al,^[5] Krishna PV et al,^[7] Halgar K et al,^[12] Pillai SK et al,^[14] and Hasanah O et al.^[15]

CONCLUSION

The present study demonstrated that the LATCH scoring system is a reliable and practical tool for identifying breastfeeding difficulties and monitoring progress. It also highlights the positive impact of structured counselling and lactation support on improving breastfeeding outcomes. Significant improvements were observed in LATCH scores and breastfeeding success rates across all maternal demographics and delivery types. The findings reinforce the importance of implementing early, targeted breastfeeding education and support particularly for postnatal mothers to enhance maternal confidence, breastfeeding effectiveness, and overall neonatal health. Routine lactation counselling should be integrated into postnatal care protocols to ensure sustained breastfeeding success and better long-term outcomes for mother-infant dyads.

Limitation

This was a single-center study with a short follow-up period, limiting the generalizability of the findings and preventing assessment of long-term breastfeeding outcomes. The LATCH score may be subject to observer variation, and the absence of a

control group makes it difficult to attribute improvements solely to counselling. Additionally, the Hawthorne effect may have influenced participants' breastfeeding practices, and the exclusion of preterm or medically compromised neonates limits the applicability of the results to all postnatal mothers and infants.

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