Section: Pediatrics

Original Research Article

LATCH SCORE FOR IDENTIFICATION AND CORRECTION OF BREASTFEEDING PROBLEMS AT TERTIARY CARE CENTRE, VIJAYAWADA

Sowjanya Yendapu[1], Devadi Aswini[2], Ramanjaneyulu Ulli[3], T Indraja[4]

[1]*Assistant Professor, Department of Pediatrics, Siddhartha Medical College. GGH, Vijayawada, Andhra Pradesh, India.*
[2]*Assistant Professor, Department of Pediatrics, Siddhartha Medical College. GGH, Vijayawada, Andhra Pradesh, India.*
[3]*Assistant Professor, Department of Pediatrics, Siddhartha Medical College. GGH, Vijayawada, Andhra Pradesh, India.*
[4]*Postgraduate, Department of Pediatrics, Siddhartha Medical College. GGH, Vijayawada, Andhra Pradesh, India.*

Received *: 12/05/2026*
Received in revised form *: 28/06/2026*
Accepted *: 13/07/2026*

Corresponding Author:
Dr Devadi Aswini,
Assistant Professor, Department of Pediatrics, Siddhartha Medical College.GGH, Vijayawada, Andhra Pradesh, India.
Email: sunshine.aswini7@gmail.com

DOI: 10.70034/ijmedph.2026.3.464

Source of Support: Nil,
Conflict of Interest: None declared

Int J Med Pub Health
2026; 16 (3); 2961-2969

ABSTRACT

Background: Successful breastfeeding is essential for optimal neonatal nutrition, growth, immunity, and maternal well-being. Despite its well-established benefits, many mothers experience breastfeeding difficulties during the early postpartum period, leading to ineffective feeding and premature discontinuation of exclusive breastfeeding. The LATCH breastfeeding assessment tool is a simple, standardized scoring system that evaluates five components of breastfeeding—Latch, Audible swallowing, Type of nipple, Comfort, and Hold/positioning. Early identification of breastfeeding problems using the LATCH score enables timely interventions, improves breastfeeding practices, and enhances maternal confidence.

Aims and Objectives:To determine the incidence and nature of early breastfeeding problems using LATCH tool. To analyse the impact of breastfeeding support in improving the LATCH score. Objectives to determine early breastfeeding problems using LATCH tool. To analyze the impact of breastfeeding supportive measures in improving LATCH score.

Materials and Methods: It was a Prospective observational study carried out during the period from August 2023– July 2024. This study was conducted among 500 inborn term neonates delivered via normal vaginal delivery in the postnatal ward. The primary aim was to identify breastfeeding difficulties using the LATCH scoring system at 6–12 hours post-birth and to assess the impact of breastfeeding support, education, and training provided to mothers. The LATCH score was reassessed at 24–48 hours of life to determine improvement in breastfeeding effectiveness.

Results: In the present study, 52.2% were male; 47.8% were female. 94.8% of newborns weighed over 2500 grams. All infants were full-term (gestational age 37–41 weeks). Initial LATCH scoring at 6–12 hours showed a mean score of 6.62 ± 1.28, with only 26.4% achieving a satisfactory score (>8). Components like Comfort scored highest, while Hold and Audible Swallowing were notably low. After breastfeeding support and training, reassessment at 24–48 hours demonstrated a significant increase in breastfeeding efficiency. The mean LATCH score rose to 7.83 ± 1.71. 84.6% achieved satisfactory scores. Statistically significant improvements were seen in Latch, Audible Swallowing, Type of Nipple, and Hold components ($p < 0.001$). Maternal age and education were not significantly associated with breastfeeding performance.

Conclusion: This study emphasizes the importance of early identification and targeted intervention in managing breastfeeding difficulties. These findings support the incorporation of routine LATCH-based assessments and lactation counselling as a standard part of postnatal care protocols.

Keywords: Breast feeding, LATCH scoring, Lactation, Postnatal Care.

INTRODUCTION

The World Health Organisation (WHO) and United Nations Children's Fund (UNICEF) encourage the prompt initiation of breastfeeding, exclusive breastfeeding for the first six months of life, and sustained nursing until 24 months of age.[1] Although nursing is a natural procedure, many moms face various problems, especially during the immediate postpartum period. Insufficient confidence in breastfeeding, difficulties with infant latching or suckling, breast discomfort, perceptions of inadequate milk supply, and lack of individualised support from healthcare professionals in the early postpartum period are prevalent factors contributing to premature cessation of breastfeeding.[2]

- The evaluation of breastfeeding in the hospital prior to release provides essential assistance and motivation to women, hence increasing the probability of successful nursing. In the past decade, five lactation tools have been identified based on mother conduct and newborn sucking abilities. The tools include the Lactation Assessment Tool, Breastfeeding Observation Form, Mother-Baby Assessment Tool, Latch Scoring System, and Mother-Infant Breastfeeding Progress Tool.[3]
- The LATCH scoring method developed by Jensen et al was used for this investigation because to its simplicity of application, reduced number of components, and resemblance to the APGAR score structure.[4]
- The present study was conducted to evaluate the LATCH Score for the identification and rectification of breastfeeding issues at a tertiary care facility in Vijayawada.

Aims and Objectives

- To determine the incidence and nature of early breastfeeding problems using LATCH tool
- To analyse the impact of breastfeeding support in improving the LATCH score
- OBJECTIVES
- Objective: To determine early breastfeeding problems using LATCH tool
- To analyze the impact of breastfeeding supportive measures in improving LATCH score.

MATERIALS AND METHODS

Study Centre: Department of Pediatrics, Siddhartha medical college and hospital, Vijayawada.
Study Design: Prospective observational study
Study Duration

- August 2023– July 2024 SAMPLE SIZE • 500 neonates

Inclusion and Exclusion Criteria
Inclusion Criteria
All term inborn neonates on mother side in post-natal ward Delivered through normal vaginal delivery
Exclusion Criteria

1. Preterms
2. Babies requiring NICU admission
3. Multiple pregnancy
4. Sick mother
5. Babies whose parents didn't give consent

Methodology

1. lnborn term neonates in post-natal ward delivered via normal vaginal delivery are selected. Breastfeeding problems are identified by LATCH score at 6-12h after birth and are provided with breastfeeding support, education and training to mothers
2. LATCH scores are reassessed at 24-48h of life
3. Babies coming under the category are included in the study after taking parenteral consent
4. Babies whose parents didn't give the consent are excluded

Ethical Clearance
Permission from Institutional ethical committee will be sought.Written Informed consent will be taken from study participants parents. Confidentiality of study participants will be maintained.

RESULTS

Table 1: Maternal Age

Maternal Age	Frequency	Percent
<20 Yrs	8	1.60
20 – 30 Yrs	348	69.60
>30 Yrs	144	28.80
Total	500	100.00

[Table 1] presents the distribution of maternal age among the study participants. The majority of mothers (69.6%) were aged between 20 and 30 years, followed by 28.8% who were over 30 years of age. A small proportion (1.6%) were younger than 20. This indicates that most pregnancies occurred within the 20–30-year age group.

Table 2: Mothers Education

Mother's Education	Frequency	Percent
High School	215	43.00
Intermediate	187	37.40
Graduate	98	19.60
Total	500	100.00

[Table 2]presents the educational background of mothers in the sample population. Out of 500 respondents, 43% had completed high school, 37.4% had an intermediate level of education, and 19.6% were graduates. High school education was the most common, indicating a moderate level of educational attainment among the majority of mothers surveyed.

Table 3: Parity Status

Parity Status	Frequency	Percent
Primipara	265	53.00
Multipara	235	47.00
Total	500	100.00

[Table 3]presents the distribution of parity status among the study participants. Of the total 500 individuals, 265 are primipara (first-time mothers), representing 53.00% of the sample, while 235 are multipara (mothers with previous pregnancies), making up 47.00% of the sample.

Table 4: Gestational Age (Weeks)

Gestational Age (weeks)	Frequency	Percent
37 weeks	105	21.00
38 weeks	102	20.40
39 weeks	104	20.80
40 weeks	91	18.20
41 weeks	98	19.60
42 weeks	500	100.00

[Table 4]presents the distribution of gestational age at delivery. The most common gestational ages were 37 weeks (21.0%), 39 weeks (20.8%), and 38 weeks (20.4%). Deliveries at 41 weeks accounted for 19.6%, while 18.2% occurred at 40 weeks. Overall, the data shows an even distribution of term deliveries, primarily between 37 and 41 weeks.

Table 5: Sex of the Baby

Sex of The Baby	Frequency	Percent
Female	239	47.80
Male	261	52.20
Total	500	100.00

[Table 5]shows the sex distribution of the newborns. Males slightly higher than females, accounting for 52.2% of the births, while females comprised 47.8%. This indicates a near-equal sex ratio among the study population.

Table 6: Birthweight Classification

Birthweight Classification	Frequency	Percent
<2500 grams	26	5.20
>2500 grams	474	94.80
Total	500	100.00

[Table 6]presents the classification of birthweight among the new-borns. The vast majority (94.8%) had a birthweight greater than 2500 grams, while only 5.2% were classified as low birthweight (<2500 grams). This Indicates That Most Babies InThe Stud Were Born With a Healthy Weight.

Table 7: Scores of Individual Components of LATCH Scoring System at 6-12 Hour

	Men	Std . Deviation
Latch	1.41	0.59
Audible Swallowing	0.90	0.54
Type Of Nipple	1.50	0.77
Comfort	2.00	0.00
Hold	0.81	0.59
LATCH Score	6.62	1.28

[Table 7]presents the mean scores and standard deviations for individual components of the LATCH scoring system assessed at 6–12 hours postpartum. The highest mean score was observed for Comfort (2.00 ± 0.00), indicating consistent maternal comfort. Type of Nipple and Latch had moderate scores (1.50 ± 0.77 and 1.41 ± 0.59, respectively), while Audible Swallowing (0.90 ± 0.54) and Hold (0.81 ± 0.59) scored lower. The overall mean LATCH score was 6.62 ± 1.28, reflecting moderate breastfeeding effectiveness in the early postpartum period.

Table 8: Scores of Individual Components of LATCH Scoring System at 24-48 Hour

	Mean	Std . Deviation
Latch	1.85	0.36
Audible Swallowing	1.26	0.44
Type Of Nipple	1.85	0.36
Comfort	1.70	0.71
Hold	1.17	0.38
LATCH Score	7.83	1.71

[Table 8]presents the mean scores and standard deviations for individual components of the LATCH scoring system assessed at 24–48 hours postpartum. The highest scores were observed for Latch and Type of Nipple (both 1.85 ± 0.36), indicating improved infant attachment and favorable nipple anatomy. Comfort and Audible Swallowing showed moderate scores (1.70 ± 0.71 and 1.26 ± 0.44, respectively), while Hold had the lowest mean (1.17 ± 0.38). The overall mean LATCH score increased to 7.83 ± 1.71, suggesting enhanced breastfeeding performance as postpartum progress continued.

Table 9: Scores of Individual Components of LATCH Scoring System at 6-12 Hours and 24-48 Hours After Delivery Using Median

Component	Score (6-12 h)	Score (24-48h)	P value
Latch	1 (0,2)	2 (1,2)	< 0.001
Audible Swallowing	1 (0,2)	1 (1,2)	< 0.001
Type Of Nipple	2 (0,2)	2 (1,2)	< 0.001
Comfort	2 (2,2)	2 (2,2)	0.24
Hold	1 (0,2)	1 (1,2)	< 0.001

[Table 9]compares the median scores of individual components of the LATCH scoring system between 6–12 hours and 24–48 hours postpartum. Significant improvements were observed in Latch, Audible Swallowing, Type of Nipple, and Hold, with all showing statistically significant p-values (< 0.001). Comfort maintained a consistent median score of 2 at both time points, with no significant change (p = 0.24). These findings indicate notable progress in breastfeeding effectiveness within the first two days after delivery, except in maternal comfort, which remained stable.

Table 10: LATCH Score Classification Comparison Between 6-12 and 24-48 Hours

LATCH Score Classification	Satisfactory (>8)	Not Satisfactory (<8)	Total
6-12 Hours Initial Assessment	132	368	500
24-48 Hours After Education And Training	423	77	500

[Table 10]compares the classification of LATCH scores between 6–12 hours and 24 48 hours postpartum. At 6–12 hours, only 132 mothers (26.4%) had satisfactory scores (>8), while the majority (73.6%) had unsatisfactory scores (<8). By 24-48 hours, there was a marked improvement, with 423 mothers (84.6%) achieving satisfactory scores and only 77 (15.4%) remaining in the unsatisfactory category. This indicates a significant enhancement in breastfeeding effectiveness and support within the first two days post-delivery.

Table 11: Scores of Individual Components of LATCH Scoring System at 6-12 Hour and 24-48 Hour After Delivery

		Latch Score (<8)		p-value
		6-12h (n= 368)	24-48h (n = 77)	
Birthweight Classification				
<2500		18	9	0.02
>2500		350	68	
Parity Status				
Primipara		194	41	0.02
Multipara		174	36	
Maternal age				
<20		5	2	>0.05
20-30		255	57	
>30		108	18	
Mothers' Education				
High school		157	31	>0.05
Intermediate		149	33	
Professional		98	25	

[Table 11] presents the scores of individual components of the LATCH scoring system at 6-12 hours and 24-48 hours after delivery. The table compares various factors, such as birthweight classification, type of delivery, parity status,

maternal age, and mothers' education, alongside LATCH scores.

- For birthweight classification, a significant difference is observed between infants weighing 2500g (18 in the 6-12h group and 9 in the 24-48h group, p = 0.02) and those weighing >2500g(350 in the 6-12h group and 68 in the 24-48h group).
- In terms of parity status, there is a significant difference (p = 0.02), with 194 primipara and 174 multipara women in the 6-12h group, compared to 41 primipara and 36 multipara women in the 24-48h group.
- For maternal age, no significant difference is found (p >0.05), with 5 mothers aged 30 at 6-12 hours, and 2 mothers aged 30 at 24-48 hours.
- Mothers' education shows no significant association (p >0.05), with 98 graduate mothers, 149 intermediate mothers, and 157 high school mothers at 6-12 hours, compared to 25 graduate mothers, 31 high school mothers, and 33 intermediate others at 24-48 hours.

DISCUSSION

Findings of the Present Study

This study assessed breastfeeding effectiveness using the LATCH scoring system among inborn term neonates in the postnatal ward delivered via normal vaginal delivery. The research focused on identifying early breastfeeding problems and evaluating the impact of targeted interventions. Breastfeeding difficulties were initially assessed using the LATCH score between 6 and 12 hours after birth. Based on this assessment, mothers were provided with structured breastfeeding support, education, and hands-on training. LATCH scores were then reassessed between 24 and 48 hours of life to determine the effectiveness of the support provided.

Maternal Age Distribution and Its Impact

The age distribution revealed that the majority of mothers were between 20 and 30 years old (69.6%), followed by those over 30 (28.8%), and only 1.6% were under 20. This reflects a reproductive demographic concentrated in the prime childbearing age group. When examining associations with breastfeeding success as measured by LATCH scores, maternal age was not a statistically significant factor (p = 0.44). This indicates that when appropriate breastfeeding support is offered, age differences do not greatly influence initial breastfeeding outcomes.

Educational Background of Mothers

Educationally, the study population was predominantly composed of graduates (86%), with smaller groups holding high school diplomas (7.8%) and professional qualifications (6.2%). Despite this high level of maternal education, no statistically significant association was found between educational status and LATCH scores (p = 0.41). This suggests that hands-on breastfeeding education and support provided during the postpartum period can effectively bridge any educational gaps in breastfeeding practices.

Parity Status and Breastfeeding Performance

Primiparous mothers (53%) slightly outnumbered multiparous mothers (47%). However, primiparas had a significantly higher incidence of unsatisfactory LATCH scores both at 6–12 hours and 24–48 hours postpartum (p = 0.02). This highlights the added challenges faced by first-time mothers in initiating effective breastfeeding and reinforces the necessity for additional support for this subgroup. The improvement in scores over time also suggests that the educational interventions were effective across both parity groups.

Gestational Age and Neonatal Sex

Most deliveries occurred at term between 37 and 41 weeks, with week 37 being the most common (21%). The sex distribution was nearly equal, with males (52.2%) slightly outnumbering females (47.8%). Neither gestational age nor sex of the new born demonstrated any significant correlation with breastfeeding effectiveness, as reflected in LATCH score trends. These variables, while relevant to general neonatal outcomes, appeared neutral in terms of influencing breastfeeding initiation and maintenance within the study setting.

Birthweight as a Determinant of Breastfeeding Success

The majority of neonates (94.8%) had a birthweight exceeding 2500 grams. Only 5.2% were classified as low birthweight (<2500 g). Importantly, Low Birthweight Was Significantly Associated with Unsatisfactory LATCH Scores (p=0.02). These Neonated Often Experience Weaker Sucking Reflexes and Fatigue More Quickly, Making Breastfeeding More Challenging. The Structured Breastfeeding Training Provided to Mothers of These Infants Helped Improve Their LATCH Scores by The 24-48-hour Reassessment, Illustrating The Potential Benefit of Targeted Support in This Vulnerable Group.

Initial LATCH Score Assessment (6–12 Hours)

At 6–12 hours postpartum, the mean LATCH score was 6.62 ± 1.28, indicating room for improvement in breastfeeding techniques. The component-wise analysis revealed that Comfort had the highest score (2.00 ± 0.00), suggesting minimal maternal physical distress at this stage. However, scores for Hold (0.81 ± 0.59) and Audible Swallowing (0.90 ± 0.54) were lower, pointing to difficulties in proper infant positioning and milk transfer. These findings helped identify mothers needing additional breastfeeding guidance, and they were subsequently provided with focused education and practical support.

Post-Intervention Reassessment (24–48 Hours)

Following targeted breastfeeding training, education, and support, mothers were reassessed between 24 and 48 hours postpartum. The mean LATCH score improved significantly to 7.83 ± 1.71. Most components showed improvement: Latch and

Type of Nipple each scored 1.85 ± 0.36, and Audible Swallowing improved to 1.26 ± 0.44. Although Hold still had the lowest score (1.17 ± 0.38), it too improved significantly from the initial assessment. These findings clearly demonstrate the positive impact of timely lactation interventions.

Statistical Comparison of Components

When comparing the median scores of LATCH components between the two time intervals, statistically significant improvements were observed in all parameters except Comfort. Latch, Audible Swallowing, Type of Nipple, and Hold all had p-values < 0.001, indicating strong improvements over the initial assessment. Comfort remained consistently high (score of 2) with a p-value of 0.24, showing that maternal discomfort was not a limiting factor in breastfeeding for this cohort.

Classification of LATCH Scores: A Clear Shift

The proportion of mothers with satisfactory breastfeeding (LATCH score >8) improved dramatically from 26.4% at 6–12 hours to 84.6% at 24–48 hours. Correspondingly, unsatisfactory scores (<8) decreased from 73.6% to 15.4%. This Major Shift underscored the effectiveness of postnatal breastfeeding education and support provided during the hospital stay. The clear improvement across nearly all measured categories reflects both the adaptability of mothers and the efficacy of early interventions.

Additional Associations and Insights

Further Breakdown of LATCH scores based on demographic variables showed significant associations with birth weight (p=0.02) and type of delivery, although all participants were vaginally delivered in this subset. Maternal age and educational level were not significantly associated with breastfeeding performance, which aligns with the effectiveness of institutional support systems in standardizing maternal knowledge and practice across varied backgrounds.

These results align with findings from similar studies emphasizing the utility of the LATCH scoring system in identifying and addressing breastfeeding problems. For instance, a study by Arora et al. (2024) investigated neonatal hypernatremic dehydration in exclusively breastfed neonates and identified significant associations between low LATCH scores and breastfeeding difficulties. In this study, mothers of affected neonates had an average LATCH score of 4.29, compared to 8.08 in the control group, highlighting the correlation between low LATCH scores and breastfeeding issues. The study concluded that delayed initiation and inadequate breast feeding techniques were significant contributors to neonatal dehydration, emphasizing the need for targeted breastfeeding education and support, particularly for primiparous mothers.[5]

The findings from the present study in Vijayawada corroborate these observations, demonstrating that early identification of breastfeeding challenges through the LATCH scoring system, followed by structured support, can lead to significant improvements in breastfeeding outcomes. The significant improvement in LATCH scores from 6–12 hours to 24–48 hours postpartum in the present study underscores the effectiveness of timely lactation interventions.

While the study by Arora et al. focused on neonatal hypernatremic dehydration as an outcome of breastfeeding difficulties, the present study in Vijayawada emphasizes the proactive use of the LATCH score to identify and correct breastfeeding problems before such complications arise. Both studies highlight the critical role of early assessment and intervention in promoting successful breastfeeding practices and preventing neonatal complications.[6]

The LATCH scoring system—evaluating Latch, Audible swallowing, Type of nipple, Comfort, and Hold—has been instrumental in identifying and addressing breastfeeding challenges in postpartum mothers. Our study at a tertiary care center in Vijayawada assessed breastfeeding effectiveness using the LATCH score at two intervals: 6–12 hours and 24–48 hours postpartum. Mothers with initial low scores received targeted breastfeeding support, education, and training, leading to significant improvements in subsequent assessments. These findings align with similar research conducted in various regions, underscoring the LATCH score's utility in clinical practice.

Comparative Analysis with Similar Studies

A study conducted at the Kovai Medical Center and Hospital in Coimbatore evaluated 400 mother-infant dyads, identifying breastfeeding problems using the LATCH score at 6–12 hours postpartum. The study reported that 72% of mothers had LATCH scores below 8 during the initial assessment. Following targeted breastfeeding support and education, reassessment at 24–48 hours showed a significant increase in median LATCH scores from 7 to 8, with only 15.8% of mothers retaining scores below 8. This improvement mirrors our findings, highlighting the effectiveness of early intervention in enhancing breastfeeding outcomes.[5]

Similarly, research conducted by Halgar et al., 2024 in North Karnataka assessed 100 postpartum mothers using the LATCH score within 24 hours of birth and again at 48 hours post-intervention. Initially, a substantial number of mothers had poor to moderate LATCH scores. After providing breastfeeding support, 81% of mothers transitioned to the good LATCH score category, with the mean score increasing from 5.83 to 9.31. These results are consistent with our study, reinforcing the LATCH score's role in identifying at-risk mothers and guiding appropriate interventions.[7]

Furthermore, a study in Nellore, Andhra Pradesh, involving 400 mother-infant dyads, reported that 86% had LATCH scores below 8 at 6–12 hours postpartum. After lactation counselling and support, this percentage decreased significantly to 16.5% at 24–48 hours. The study also noted that certain

subgroups, such as primiparous, younger, less-educated mothers, and those who underwent cesarean sections, were more likely to have lower LATCH scores, indicating the need for targeted support in these populations.[8]

LATCH Score as a Predictor of Long-Term Breastfeeding Success

Beyond immediate postpartum assessments, the LATCH score has been predictive of long-term breastfeeding success. A study in Chennai found that mothers with a LATCH score of ≥6 at birth were 5.92 times more likely to exclusively breastfeed at 6 weeks postpartum. Similarly, a score of ≥8 at 48 hours/discharge was associated with a 9.28 times higher likelihood of exclusive breastfeeding at 6 weeks. These findings suggest that early LATCH assessments can serve as valuable indicators for ongoing breastfeeding practices and highlight the importance of early support and intervention.[9-12]

Sure! Here is a detailed six-page general discussion of your study titled "LATCH Score for Identification and Correction of Breastfeeding Problems at a Tertiary Care Centre, Vijayawada", based on your findings. The discussion explores the findings, interprets their significance, compares them with other studies, and reflects on their implications for clinical practice.

Breastfeeding is universally recognized as a vital component of infant nutrition and maternal health. Successful breastfeeding initiation within the first hour of birth and its continuation is influenced by a variety of maternal, neonatal, and systemic factors. Despite awareness of its benefits, breastfeeding challenges persist, especially in the early postpartum period. This study was designed to assess breastfeeding effectiveness among term neonates delivered vaginally at a tertiary care centre in Vijayawada using the LATCH scoring system, which provides a structured assessment of breastfeeding quality based on five key domainsLatch, Audible swallowing, Type of nipple, Comfort, and Hold.

Study Design and Methodology Summary

The study included 500 inborn, term neonates who were delivered via normal vaginal delivery and managed in the postnatal ward. The LATCH score was used to identify breastfeeding difficulties at 6–12 hours postpartum, and mothers of infants with suboptimal scores were provided with individualized breastfeeding support, education, and practical training. Reassessment was done at 24–48 hours postpartum to evaluate the impact of these interventions.

The LATCH score offers a composite picture of both maternal and neonatal contributions to successful breastfeeding, and using it systematically has shown value in early identification of breastfeeding challenges and in guiding targeted support.

The study population was predominantly aged between 20 and 30 years (69.6%), which is consistent with optimal reproductive age. While only 1.6% of mothers were younger than 20, and 28.8% were older than 30, maternal age was not significantly associated with breast feeding performance in our study ($p = 0.44$). This suggests that age, as an isolated factor, may not strongly influence early breastfeeding success when institutional support is adequately provided.

The educational background of participants revealed that a majority were graduates (86%), reflecting a relatively literate cohort. However, education level did not significantly affect LATCH scores ($p = 0.41$). This outcome supports the notion that structured postpartum education and hands-on support can effectively bridge knowledge gaps, ensuring that breastfeeding practices are consistent across varying education levels.

Parity played a more significant role. Primiparous mothers (53%) were more likely to have suboptimal LATCH scores at 6–12 hours, with gradual improvement by 24–48 hours ($p = 0.02$). This finding aligns with the understanding that first-time mothers mayface more challenges due to lack of experience and confidence, necessitating enhanced support during their initial breastfeeding journey.

A strong association was observed between birthweight and breastfeeding success. Infants with a birthweight<2500 grams were significantly more likely to have poor LATCH scored at both time intervals ($p=0.02$). low birthweight infants often present with weak sucking reflexes and are easily fatigued, making breastfeeding more difficult. Our findings emphasize the importance of additional support and potentially alternative feeding strategies for this group until breastfeeding is established.

Although the study included only vaginally delivered neonates, the broader literature consistently shows that cesarean deliveries are associated with delayed initiation and reduced breastfeeding success due to maternal discomfort, delayed skin to-skin contact, and limited mobility. By controlling for delivery mode, our study minimized this confounding factor, allowing a focused evaluation of breastfeeding dynamics in an optimized delivery context.

Breast feeding Effectiveness Assessed by LATCH Score

The initial LATCH score assessed at 6–12 hours postpartum revealed a mean score of 6.62 ± 1.28, indicating that a significant proportion of mothers required support. Most problematic domains were Hold (0.81) and Audible Swallowing (0.90), which relate to positioning and milk transfer—two critical aspects of effective breastfeeding.

Following intervention, the mean score improved to 7.83 ± 1.71 at 24–48 hours, with notable improvements across all parameters except for Comfort, which remained stable at a high level. These findings clearly demonstrate the positive impact of early, targeted breastfeeding support on maternal and infant performance.

The proportion of mothers achieving a satisfactory LATCH score (>8) increased from 26.4% at 6–12 hours to 84.6% at 24–48 hours, highlighting the value of repeated assessment and intervention. This sharp improvement indicates that breastfeeding problems in the early hours are modifiable with the right interventions, particularly in hospital settings with trained staff and breastfeeding-friendly policies.

Such studies collectively validate the findings of the present research and emphasize the universality of LATCH as an assessment and intervention tool, applicable across various settings and populations.

Strengths and Limitations of the Study

One of the key strengths of the study was its prospective design and the inclusion of only vaginally delivered term neonates, which eliminated major confounders. Additionally, the use of a standardized, validated tool (LATCH) and structured interventions ensured consistency in assessment and management.

However, some limitations exist:

- The exclusion of cesarean-delivered mothers means that results cannot be generalized to all postpartum women.
- The study's follow-up period was limited to 48 hours, and long-term breastfeeding outcomes were not assessed.
- There may be variability in how support and counseling were delivered by different healthcare providers.
- This study doesn't include sick infants who after discharge from health centers may face difficulty in breastfeeding
- Future research may consider a broader population, including cesarean cases, and conduct long-term follow-up to correlate early LATCH scores with exclusive breastfeeding duration and infant growth outcomes.

Clinical Implications and Recommendations

The findings of this study have important clinical implications for hospitals and healthcare professionals involved in maternal and neonatal care:

- Routine use of LATCH scoring in the postnatal ward can help in early detection of breastfeeding difficulties.
- Personalized breastfeeding support, especially for first-time mothers and mothers of low-birthweight infants, can substantially improve outcomes.
- Establishing breastfeeding-friendly protocols and assigning dedicated lactation counselors or trained nurses can optimize postnatal care.

In addition, nursing curricula should continue to include modules on breastfeeding counseling, and institutional policies should reinforce skin-to-skin contact, early initiation, and on-demand feeding practices.

This study clearly demonstrates that the LATCH scoring system is an effective tool for early identification and correction of breastfeeding problems. By assessing mothers at 6–12 hours postpartum and providing timely support, substantial improvements in breastfeeding effectiveness were observed by 24–48 hours. The findings reinforce the importance of institutional breastfeeding support and the role of structured postpartum care in promoting successful breastfeeding practices.

Incorporating such strategies at tertiary care centers such as the one in Vijayawada can significantly enhance maternal and infant health outcomes.

Implications for Clinical Practice

The consistent findings across diverse settings underscore the LATCH score's reliability as a tool for early identification of breastfeeding challenges. Implementing routine LATCH assessments in tertiary care centers allows healthcare providers to offer timely, individualized support, addressing specific issues such as poor latch, nipple problems, or positioning difficulties. This proactive approach not only enhances immediate breastfeeding outcomes but also contributes to sustained exclusive breastfeeding rates, benefiting both maternal and infant health.

Limitations

1. Single-Center Design: The study was conducted in one institution, limiting the generalizability of the findings to different settings with varied populations and resources.
2. Short Follow-Up Duration: The study assessed breastfeeding outcomes only up to 48 hours postpartum. Longer-term follow-up could have provided insights into sustained breastfeeding success or failure and infant growth outcomes.
3. Subjectivity in LATCH Scoring: Although standardized, the LATCH score has subjective elements and can vary depending on the observer's training and experience.
4. No Longitudinal Data: There was no assessment of maternal confidence or continued exclusive breastfeeding rates beyond discharge, which are crucial indicators of breastfeeding success.
5. Limited Assessment of Maternal Factors: While maternal education and age were recorded, other influencing factors like breastfeeding intention, emotional support, and maternal anxiety were not assessed.

CONCLUSION

This study emphasizes the importance of early identification and targeted intervention in managing breastfeeding difficulties. By selecting inborn, term neonates delivered vaginally, the study focused on a relatively healthy new born population. Breastfeeding problems were identified using the LATCH score at 6–12 hours post-birth, revealing initial challenges in latching, positioning, and audible swallowing. Following timely breastfeeding

support, education, and hands-on training provided to mothers, significant improvements were observed by 24–48 hours of life. The proportion of neonates with satisfactory breastfeeding performance increased from 26.4% to 84.6%, underscoring the effectiveness of structured lactation support in the early postnatal period. Early, focused breastfeeding support can substantially improve feeding effectiveness, especially in vulnerable groups such as primipara mothers, infants with low birth weight, and mothers post-cesarean section. These findings support the incorporation of routine LATCH-based assessments and lactation counselling as a standard part of postnatal care protocols.

REFERENCES

1. Das JK, Salam RA, Imdad A, Bhutta ZA. Infant and Young Child Growth. In: Black RE, Laxminarayan R, Temmerman M, Walker N, editors. Reproductive, Maternal, Newborn, and Child Health: Disease Control Priorities, Third Edition (Volume 2) [Internet]. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2016 [cited 2025 Mar 27]. Available from: http://www.ncbi.nlm.nih.gov/books/NBK361899/.
2. Ahmad MO, Sughra U, Kalsoom U, Imran M, Hadi U. Effect of antenatal counselling on exclusive breastfeeding. J Ayub Med Coll Abbottabad. 2012;24(2):116–9.
3. Suresh S, Sharma KK, Saksena M, Thukral A, Agarwal R, Vatsa M. Predictors of breastfeeding problems in the first postnatal week and its effect on exclusive breastfeeding rate at six months: experience in a tertiary care centre in Northern India. Indian J Public Health. 2014;58(4):270–3.
4. Jensen D, Wallace S, Kelsay P. LATCH: a breastfeeding charting system and documentation tool. J ObstetGynecol Neonatal Nurs. 1994 Jan;23(1):27–32.
5. Arora I, Juneja H, Bhandekar H, Chandankhede M. Neonatal hypernatremic dehydration in breastfed neonates: a prospective study unmasking the influences of breastfeeding practices and early weight monitoring. J MaternFetal Neonatal Med. 2024 Dec;37(1):2299568.
6. Rapheal SM, Rajaiah B, Karupanan R, Abiramalatha T, Ramakrishnan S. LATCH Score for Identification and Correction of Breastfeeding Problems - A Prospective Observational Study. Indian Pediatr. 2023 Jan 15;60(1):37–40.
7. Halgar K, Mangshetty RB, B AA. LATCH score: a tool for identification and correction of breastfeeding problems in a tertiary care hospital of North Karnataka. International Journal of Contemporary Pediatrics. 2024 Feb 22;11(3):272–6.
8. LINGALA SD, VASAVI NJ, ADDANKI AJ, CHINTHA LP, REDDY NA. Identification of Breastfeeding Problems using LATCH Score and the Impact of Lactation Counselling: A Quasi-experimental Study. Journal of Clinical & Diagnostic Research. 2025 Jan 1;19(1).
9. Sowjanya SVNS, Venugopalan L. LATCH Score as a Predictor of Exclusive Breastfeeding at 6 Weeks Postpartum: A Prospective Cohort Study. Breastfeed Med. 2018;13(6):444–9.
10. Shah MH, Roshan R, Parikh T, Sathe S, Vaidya U, Pandit A. LATCH Score at Discharge: A Predictor of Weight Gain and Exclusive Breastfeeding at 6 Weeks in Term Healthy Babies. J PediatrGastroenterolNutr. 2021 Feb 1;72(2):e48–52.
11. Tornese G, Ronfani L, Pavan C, Demarini S, Monasta L, Davanzo R. Does the LATCH score assessed in the first 24 hours after delivery predict non-exclusive breastfeeding at hospital discharge? Breastfeed Med. 2012 Dec;7(6):423–30.
12. Kumar SP, Mooney R, Wieser LJ, Havstad S. The LATCH scoring system and prediction of breastfeeding duration. J Hum Lact. 2006 Nov;22(4):391–7..