

“BRIDGES OF COMFORT: NURSE-LED INTERVENTIONS IN FEEDING AND MOTHERHOOD”

SHANMUGAPRIYA SHANMUGASUNDHARAM¹, SHANKAR SHANMUGAM RAJENDRAN²,
KANNAN KASINATHAN³, ASHALIN RAJA BRINTHA PALAS⁴, NEEVATHA PALANI⁵,
ABISHA MARY ANTONY JOHNSON KENNADY⁶, DR. WINSTON THOMAS⁷

¹ Post Graduate, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03 (Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail: pratapriyaluxmi0495@gmail.com

² Principal & HOD, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03(Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail:shankarshaki@yahoo.com,

³ Assistant Professor, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03(Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail: kanmani70@gmail.com

⁴ Post Graduate, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03 (Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail: ashlin128@gmail.com

⁵ Post Graduate, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03 (Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail: neevathapalani@gmail.com

⁶ Post Graduate, Department of Child Health Nursing, College of Nursing, Madras Medical College, Chennai-03 (Affiliated to the Tamil Nadu Dr. MGR Medical University, Chennai). E mail: aabisha2767@gmail.com

⁷ Assistant Professor of Pediatrics, Institute of Child Health & Hospital for Children, Madras Medical College, Chennai.
E mail: drwinstonthomas@gmail.com

Corresponding author: Dr. Shankar Shanmugam Rajendran

Email:shankarshaki@yahoo.com

DOI: 10.63001/tbs.2025.v20.i02.S2.pp1049-1052

KEYWORDS

Cerebral palsy, Nurse led intervention, Feeding practices, Mixed method study.

Received on:

25-06-2025

Accepted on:

19-07-2025

Published on:

23-08-2025

ABSTRACT

Background:

Feeding difficulties are more common in children with cerebral palsy and have an effect on growth, Nutritional state, general health, social interaction and behavior and developmental outcomes. Feeding practices and effective care for children with cerebral palsy are essential to avoid complication and reduce stress for the caregiver and the child. Nurse-led interventions, including education on positioning, Modified food texture, Modified feeding strategy and Swallowing exercises for managing these health risks and improving quality of life of the mothers and the children with cerebral palsy.

Objectives: Assess the effectiveness of Nurse led intervention on feeding practices and explore the feeding experiences among mothers of children with Cerebral palsy.

Materials and Methods:

A mixed-method explanatory sequential design was utilized based on Health Belief Model. A total of 50 mothers of children with cerebral palsy were included in the study. Quantitative data were gathered through a validated Feeding/Swallowing Impact Survey Tool before and after nurse-led interventions, while qualitative insights were obtained through phenomenological interviews with five mothers. Statistical analyses and thematic analysis were conducted.

Result:

In the pretest, the feeding practices lies in the very high to high impact score. Following intervention, the Post test findings showed a significant reduction in mean feeding practices impact (from 75.53 to 42.31). Qualitative Thematic analysis revealed Feeding as an Emotional and Physical challenge, Impact on Family Dynamics, Adaptive Strategies and Resilience, Support System and Hospital experiences, including of 13 subthemes.

Conclusion:

Nurse-led interventions significantly improved feeding practices and reduced fear and anxiety and complications during feeding among mothers of children with cerebral palsy. Addressing physical challenges and enhancing family involvement, support services and accessible care services are crucial for betterment of quality of life of children and improving feeding practices among mothers.

INTRODUCTION

"The arrival of a newborn typically brings immense joy to parents, along with the new responsibilities and adjustments to existing routines. Families naturally go through a period of adaptation, gradually incorporating the demands of caring their child into daily life. Cerebral palsy refers to a group of permanent disorders affecting movement, muscle tone and posture, which result from non-progressive injuries or abnormalities in the developing brain of a fetus or infant. Although the brain damage is irreversible and cannot be cured, early identification and intervention can significantly enhance outcomes. Nurses are essential in promoting patient-centered care by providing education, emotional support, and interventions that address feeding difficulties and strategies. Effective nursing strategies include structured educational programs, demonstration of feeding, motivational interviewing and collaborative goal-setting. This study explores the hospital experiences faced by mothers of children with cerebral palsy and their impact on nurse led intervention on feeding strategies that promote feeding practices. By identifying key barriers to self-care and evaluating effective nursing interventions, the research aims to contribute valuable insights into improving Cerebral palsy management.

MATERIALS AND METHODS: Study Design:

An Explanatory sequential mixed method design was utilized, consisting of quantitative phase followed by qualitative phase.

Quantitative Phase:

A pre experimental One group pre-test post-test design was used.

Setting and participants:

The study was conducted in Department of Neurology, at Institute of Child Health and Hospital for Children, Egmore, Chennai. In quantitative part, 50 mothers of children with cerebral palsy aged 20-45 years included by using convenience sampling. Qualitative part included 5 mothers by using purposive sampling.

Inclusion Criteria:

- ❖ Mothers of children with cerebral palsy aged above 20 years.
- ❖ Mothers who are willing to participate in the study.
- ❖ Mothers who can communicate in Tamil or English.

Exclusion Criteria:

- ❖ Mothers who are participating in another studies.
- ❖ Mothers who have any history of psychiatric illness.

Data Collection:

Quantitative data were collected by using

- Demographic Variables of the mothers and children.
- Feeding/Swallowing Impact survey (FS-IS).

These tools were used to collect data before and after the intervention.

Qualitative Phase:

One to One interview were conducted with 5 mothers of children with cerebral palsy to explore the feeding experiences.

Intervention Protocol:

The Nurse led intervention consists of the following components.

Positioning

- ❖ Seated Positioning
- ❖ Support for Stability

Modifying Food Texture

- ❖ Soft Foods
- ❖ Thickened Liquids
- ❖ Small Portions

Modified Feeding Strategy

- ❖ Prepare for Feeding
- ❖ Pacing and Timing
- ❖ Utensil Choices
- ❖ Encourage Participation

Swallowing Exercises

- ❖ Lip Closure Exercises
- ❖ Chewing Practice
- ❖ Tongue Control Activities
- ❖ Strengthening Swallowing Muscles

Data Analysis:

Quantitative data were analyzed using descriptive and inferential statistics, including paired t tests and chi-square tests.

Qualitative data were subjected to Thematic analysis.

Ethical Considerations:

The study was approved by the Institutional Ethics Committee with wide Lr no. 541124 dated 21.11.2024. Informed consent was obtained from all the participants.

RESULTS:

Demographic Findings:

The study findings showed that 50 mothers were participated with a mean mothers age distribution was 52% between 20 to 30 years, 26% Primary education, 34% Unemployed, income 46% under Rs. 10,001-Rs. 20,000, 62% were Nuclear family, 60% married at the age of 26-30 years, 78% had Non-Consanguineous marriage.

Quantitative Findings:

Before Intervention (Pre-test score)

Pre-test results showed that 36.00% of them have High Impact feeding practice score and 64.00% of them were having Very High Impact feeding practice score and none of them have Minimal Impact, Low Impact and Moderate Impact feeding practice score.

Table 1: PRE TEST LEVEL OF FEEDING PRACTICE SCORE

LEVEL OF SCORE	NO. OF MOTHERS	%
Minimal Impact	0	0.00%
Low Impact	0	0.00%
Moderate Impact	0	0.00%
High Impact	18	36.00%
Very High Impact	32	64.00%
Total	50	100.00%

After Intervention (Post-test score)

Following the Nurse led intervention;

The post-test level of feeding practice impact score shows, 72.0% of them are having moderate impact feeding practice score and

28.00% of them are having high impact feeding practice score and none of them are having very high impact level of score.

TABLE 2: COMPARISON OF PRE-TEST AND POST-TEST LEVELS OF FEEDING PRACTICE SCORE.

Level of Feeding practice	Assessments				McNemar's test
	Pretest		Posttest		
	N	%	N	%	

Minimal Impact	0	0.00%	0	0.00%	$\chi^2=39.00$ $p=0.001^{***}$ (S)
Low Impact	0	0.00%	0	0.00%	
Moderate Impact	0	0.00%	36	72.00%	
High Impact	18	36.00%	14	28.00%	
Very High Impact	32	64.00%	0	0.00%	
Total	50	100.0%	50	100.00%	

$p>0.05$ significant S= significant

Statistical Significance:

The improvements were highly significant (McNemar's $\chi^2=39.00$ $p=0.001^{***}$ (S)) Considering pretest, 36.0% of them are having high impact level of score, 64.00% of them having very high impact level of score. Considering post test, they are having 72.00% of them are having moderate impact level of score and 28.00% of them are having very impact level of score. Statistically there is a significant difference between pretest and post-test. It was confirmed using was calculated using McNemar's test.

Association with Demographic variables:

Age of the mother and occupation status were significantly associated with mothers' post-test Feeding practices. Mothers who are under the age of 31-40 years and those who are unemployed showed a moderate impact of feeding practices.

Qualitative Findings:

THEME 1: FEEDING AS AN EMOTIONAL AND PHYSICAL CHALLENGE

- ❖ Emotional Response
- ❖ Physical Exhaustion
- ❖ Fear and Anxiety

THEME 2: IMPACT ON FAMILY DYNAMICS

- ❖ Financial Strain and Adjustments
- ❖ Siblings relationship
- ❖ Social perceptions and Acceptance

THEME 3: ADAPTIVE STRATEGIES AND RESILIENCE

- ❖ Daily Challenges
- ❖ Hope for the Future
- ❖ Spiritual and Coping strategies

THEME 4: SUPPORT SYSTEM

- ❖ Limited Family Involvement
- ❖ Social Isolation

THEME 5: HOSPITAL EXPERIENCE

- ❖ Satisfaction of Hospital services

Integration of Quantitative and Qualitative Findings:

The quantitative and qualitative findings are integrated, before the nurse-led intervention, 64% of mothers had a very high impact on feeding practices and 36% had a high impact. After the intervention, 72% improved to a moderate level and 28% remained at a high level, with none at a very high level. This change was statistically significant ($\chi^2 = 39.00$, $p = 0.001$). Mothers aged 31-40 years and unemployed mothers showed significant association in feeding practices. Overall, mothers expressed that feeding was both physically tiring and emotionally stressful, but support from family and health professionals helped them cope better.

DISCUSSION

The study demonstrates significant improvements in feeding practices following nurse-led interventions. Mothers transitioned from very high impact levels to moderate impact levels, indicating enhanced feeding skills and confidence.

The qualitative findings provide insight into the complex experiences of mothers caring for children with CP. Emotional and physical challenges were prominent, with mothers expressing feelings of exhaustion, fear, and anxiety related to feeding. The

impact on family dynamics, including financial strain and altered sibling relationships, highlights the broader effects of caring for a child with CP.

Adaptive strategies and resilience emerged as crucial themes, with mothers developing coping mechanisms and maintaining hope for their child's future. However, limited support systems and social isolation were common experiences, emphasizing the need for comprehensive support services.

The association between improved feeding practices and maternal age (31-40 years) suggests that this age group may be more receptive to interventions. The link with unemployment status could indicate that these mothers have more time to dedicate to implementing new feeding strategies.

These findings align with previous studies, such as Liu Yi et al. (2024) and Areeg A. Wafeek et al. (2023), which demonstrated improvements in feeding practices following targeted interventions. The qualitative themes echo those found by Maggie Dumsile Dlamini et al. (2023) and Meg Smith et al. (2022), particularly regarding emotional challenges, family impact, and healthcare experiences.

IMPLICATIONS FOR NURSING PRACTICE:

1. Education: Nursing curricula should incorporate comprehensive training on CP management and feeding techniques. Interdisciplinary learning with speech and occupational therapists should be encouraged.
2. Practice: Nurses should implement regular health education programs for mothers of children with CP, focusing on feeding techniques and complication prevention.
3. Management: Hospital managers should develop guidelines for nurses' roles in CP care and facilitate ongoing training.
4. Research: Further studies exploring long-term outcomes of nurse-led interventions and investigating fathers' and other caregivers' experiences are recommended.

RECOMMENDATION:

Future researchers should explore the long term effects of Nurse-led interventions, use larger samples, test in Urban and rural settings, integrate caregiver outcomes and compare digital versus direct interventions.

LIMITATIONS:

The study's generalizability is limited by its small sample size and single-center design. The short data collection period (4 weeks) may not capture long-term effects of the intervention.

CONCLUSION

The study demonstrates that nurse-led interventions significantly improve feeding practices among mothers of children with cerebral palsy and positively influence their feeding experiences. Nurses play a pivotal role not only in educating and supporting caregivers but also in fostering a nurturing environment that addresses both clinical and emotional challenges. This approach enhances the quality of care for children with CP and reduces caregiver burden. A comprehensive, multidisciplinary, and caregiver-centered strategy is essential to sustainably address feeding challenges in this vulnerable population. Nurse led intervention are important to understand whether health care services and procedures make a difference to Child's health status and quality of life of the children and their caregivers.

ACKNOWLEDGEMENT:

I sincerely thank my esteemed institution and faculty members for their invaluable support throughout this study. My heartfelt gratitude goes to my research guide for their constant guidance, encouragement and constructive feedback. I am deeply indebted to the participating mothers for sharing their time and experiences. Special thanks to my spouse, my mother, my father and my family for their patience, love and unwavering support. Above all, I thank Almighty God for granting me strength, wisdom and perseverance to complete this research.

FUNDING:

No fund received from any funding agency.

CONFLICT OF INTEREST:

The author declare no conflict of interest.

REFERENCES

- Wafeek, A. A., El-Sharkawy, S. S., Abd El-Moniem, I. I., & Morsy, M. A. Effect of nursing interventions on feeding difficulties of children with cerebral palsy. *Evidence-Based Nursing Research*, 2023 (Vol. 5 No. 3).
- Taylor, C., Zhang, M., Foster, J., Novak, I., & Badawi, N. Caregivers' experiences of feeding children with cerebral palsy: a systematic review protocol of qualitative evidence. *JB I Database of Systematic Reviews and Implementation Reports*, 2018;16(3):589-593.
- Smith, M., & Blamires, J.(2022). Mother's experience of having a child with cerebral palsy: A systematic review. *Journal of Pediatric Nursing*, 64, 64-73.
- Dlamini, M. D., Chang, Y- J., & Nguyen, T.T.B. (2023). Caregiver's experiences of having a child with cerebral palsy: A meta-synthesis. *Journal of Pediatric Nursing*, 73, 157-168.
- Liu, Y., Zhao, J., Sun, G., Yan, S., & Ma, C. (2024). The research effect of chewing function nursing techniques in improving swallowing dysfunction among children with cerebral palsy. *Pacific International Journal*, 7(3), 141-145.
- Mary, I. A. L. (Amirtha Lourdu Mary). Effectiveness of nursing intervention on knowledge and practice of feeding among caregivers of cerebral palsy children. *Asian Journal of Nursing Education and Research*, 2011;1(4):109-112.
- Miller, R. E., Mangiaracina, L., & Littlefield, S. Reducing mealtime stress for children with disabilities and their families: promoting a culture of feeding through problem-solving strategies. *Journal of Child Neurology*, 2019;34(11):628-634.