



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN HEALTH SCIENCE

An International Open Access, Peer-reviewed, Refereed Journal

A STUDY TO ASSESS THE EFFECTIVENESS OF LACTATIONAL COUNSELLING ON BREAST ENGORGEMENT AND NEWBORN FEEDING BEHAVIOUR AMONG PRIMIPARA MOTHERS IN A SELECTED HOSPITAL, CHIDAMBARAM.

***E. Jayanthi,**

*Lecturer, Department of Obstetrics and Gynecological Nursing, Rani meyyammai college of Nursing,
Annamalai University.

Abstract:

Introduction: Breastfeeding is a crucial issue for women, empowering them and preventing complications such as nipple sores and crack nipples. This study aims to assess the impact of lactational counseling on breast engorgement and newborn feeding behavior among primipara mothers at RMMCH, Chidambaram.

Methodology: A quantitative, descriptive research design was employed. The study was conducted in the postnatal wards of RMMCH, a Baby-Friendly Hospital. The sample consisted of 50 primipara mothers in Phase-I and 30 LSCS mothers in Phase-II, selected through purposive and convenience sampling, respectively. Inclusion criteria included primipara mothers aged ≥ 18 years with an alive baby who knew Tamil. Exclusion criteria included mothers with delivery complications, medical disorders, or babies with congenital anomalies. **Result and Findings:** The study found that In Phase I, 62% of mothers had breast engorgement, with 26% having mild engorgement in one breast. In Phase II, 54% had engorgement on day 3, with 31% experiencing mild engorgement in one breast, and no mothers had engorgement by day 5. Newborn feeding behavior improved from 10% poor feeding to 100% high feeding behavior by day 5, showing the effectiveness of lactational counselling. **Conclusion:** T The study highlights that there is a significantly improved breast engorgement and newborn feeding behavior among primipara LSCS mothers, confirming its effectiveness by the 5th postpartum day.

Keywords: Breastfeeding, lactation, counselling, breast engorgement, feeding, newborn.

Cite this Article: E. Jayanthi (2025). A study to assess the impact of lactational counseling on breast engorgement and newborn feeding behavior among primipara mothers at RMMCH, Chidambaram. *International Journal of Innovative Research in Health Science*, 1(4), 37-47

INTRODUCTION:

Breastfeeding is a crucial issue for women, empowering them and preventing complications such as nipple sores and crack nipples. The World Health Organization (WHO) recommends that breastfeeding should begin within half an hour of birth and be exclusively breastfed for the first six months. However, only 45% of mothers are breastfed within the first hour of life, and 65% of children are exclusively breastfed for the first six months.

Correct breastfeeding techniques are essential for successful breastfeeding, but delayed breastfeeding can lead to issues such as breast engorgement, mastitis, cracked or sore nipples, and mastitis. Breast engorgement occurs between the 3rd and 5th day of postpartum, with 20% of postnatal mothers, especially primigravida mothers, affected from 0-4 days. A study found that 65%-75% of lactating mothers experience breast engorgement.

Health education and support are essential for postpartum mothers to initiate breastfeeding and manage common difficulties. A quasi-experimental study found that there was improvement in positioning status and attachment of babies during breastfeeding after intervention. Counseling should focus on exclusive breastfeeding, immediate initiation of breastfeeding, techniques and positioning, importance of colostrum, indicators of adequacy of successful breastfeeding, expression and storage of breast milk.

Lactational counseling helps initiate breastfeeding after childbirth and prevents breast engorgement. Counselors can clarify misinformation and address concerns on breastfeeding, promoting a successful and satisfiable breastfeeding experience for mothers and infants. Continued education is crucial for raising awareness and promoting breastfeeding techniques, preventing breast engorgement, and promoting newborn feeding behavior.

METHODOLOGY:

The study used a quantitative approach to assess the impact of lactational counseling on breast engorgement and newborn feeding behavior among primipara mothers at RMMCH, Chidambaram. It followed a two-phase design: Phase-I was a descriptive survey to assess the prevalence of breast engorgement on the 3rd and 5th postpartum days, while Phase-II used a quasi-experimental one-group post-test only design to evaluate the effectiveness of counseling. The study was conducted in the postnatal wards of RMMCH, a Baby-Friendly Hospital. The sample consisted of 50 primipara mothers in Phase-I and 30 LSCS mothers in Phase-II, selected through purposive and convenience sampling, respectively. Inclusion criteria included primipara mothers aged ≥ 18 years with an alive baby who knew Tamil. Exclusion criteria included mothers with delivery complications, medical disorders, or babies with congenital anomalies. The independent variables were lactational counseling and breastfeeding behavior, while the dependent variables were breast engorgement and feeding behavior. Data were collected using a structured interview schedule with sections on demographic data, clinical details, breast engorgement, related factors, and newborn feeding behavior, using the LATCH

scale. The collected data was assembled, analyzed and tested for their significance using the descriptive statistics like frequency distribution.

RESULT AND ANALYSIS:

Table 1: Distribution of selected demographic variables of primipara mothers

Demographic Variables		Primipara mothers	
		No.	%
Age (In years)	18- 20	4	8
	21-25	17	34
	26-30	28	56
	>30	1	2
Religion	Hindu	44	88
	Christian	2	4
	Muslim	4	8
Educational Status	Illiterate	2	4
	Primary school	10	20
	High school	12	24
	High secondary school	2	4
	Graduate	24	48
Type of Family	Nuclear family	41	82
	Joint family	9	18
Occupation of the mother	House wife	46	92
	Coolie	1	2
	Self employed	1	2
	Government employed	2	4
	5001- 10,000	40	80
	10,001- 15,000	9	18
	>15,000	1	2
Residence	Rural	31	62
	Semi urban	2	4
	Urban	17	34

Table 1 presents the demographic profile of primipara mothers. The majority (56%) were aged 26-30 years, with 2% over 30 years. Most (88%) were Hindus, and 48% were graduates, while 4% were illiterate. Most mothers (82%) belonged to nuclear families, and 92% were housewives, with 2% self-employed. Regarding monthly family income, 80% earned between ₹5,000-10,000, and 2% earned above ₹15,000. In terms of residence, 62% were from rural areas, and 4% from semi-urban areas.

Table 2: Distribution of Clinical Variables of Primipara Mothers

Clinical variables		Primipara mothers	
		No.	%
Regular antenatal visit	Yes	50	100
	No	-	-
Weeks of gestation	29-36 weeks	-	-
	37-40 weeks	48	96
	41-42 weeks	2	4
Type of delivery	Normal vaginal delivery	17	34
	Instrumental delivery	3	6
	Cesarean delivery	30	60
Frequency of breast feeding / day	2-3 times / day	-	-
	4-5 times / day	20	40
	6-7 times / day	25	50
	8-10 times / day	-	-
	>10 times / day	5	10
Duration of each breast feeding	< 5 minutes	3	6
	5-10 minutes	26	52
	11-15 minutes	21	42
	>15 minutes	-	-
Interval between each breast feeding	One hour	37	74
	2 hours	5	10
	4 hours	8	16
Did you give prelacteal feeds?	Yes	-	-
	No	50	100

Table 3: Distribution of the breast engorgement among primipara mothers (on 3rd and 5th postpartum days)

Breast engorgement	3 rd Post Partum Day		5 th Postpartum Day	
	No.	%	No.	%
Single breast	8	16	-	-
Both breasts	23	46	1	2

Table 3 shows the distribution of breast engorgement among 50 primipara mothers. On the 3rd postpartum day, 62% had breast engorgement, with 16% in one breast and 46% in both breasts. By the 5th postpartum day, no mothers had engorgement in one breast, and only 2% had it in both breasts.

Table 4: Distribution of the level of breast engorgement among postpartum mothers on 3rd and 5th postpartum days

Level of breast engorgement	On 3 rd Postpartum Day				On 5 th PostPartum Day			
	Single breast		Both breasts		Single breast		Both breasts	
	No.	%	No.	%	No.	%	No.	%
Free from breast engorgement	-	-	-	-	8	26	22	71
Mild breast engorgement	8	26	22	71	-	-	1	3
Moderate breast engorgement	-	-	1	3	-	-	-	-
Severe breast engorgement	-	-	-	-	-	-	-	-

Table 4 shows the level of breast engorgement among 31 primipara mothers. On the 3rd postpartum day, 26% had mild engorgement in one breast, and 3% had moderate engorgement in both breasts. By the 5th postpartum day, no mothers had engorgement in one breast, and only 3% had mild engorgement in both breasts.

Phase -II

Table 5: Distribution of the selected demographic variables of primipara LSCS mothers

Demographic variables		Primipara LSCS mothers	
		No.	%
Age (In years)	18- 20	2	6.7
	21-25	12	40.0
	26-30	16	53.3
	>30	-	-
Religion	Hindu	30	100
	Christian	-	-
	Muslim	-	-
Educational status	Illiterate	1	3.3
	Primary school	14	46.7
	High school	1	3.3
	High secondary school	-	-
	Graduate	14	46.7
Type of family	Nuclear family	24	80.0
	Joint family	6	20.0
Occupation of the mother	House wife	30	100
	Coolie	-	-
	Self employed	-	-
	Government employed	-	-
	Private employed	-	-
Family monthly income (In rupees)	≤ 5000	12	40
	5001- 10,000	18	60

Residence	10,000- 15,000	-	-
	>15,000	-	-
	Rural	22	73.3
	Semi urban	1	3.3
	Urban	7	23.4

Table 5 presents the demographic profile of primipara LSCS mothers. Of these, 6.7% were aged 18-20 years, and 53.3% were aged 26-30 years. All mothers (100%) were Hindus. Regarding education, 3.3% were illiterate, and 46.7% were graduates. Most (80%) belonged to nuclear families, and all (100%) were housewives. In terms of family income, 40% earned less than ₹5,000, and 60% earned ₹5,001-10,000. Regarding residence, 73.3% were from rural areas, and 3.3% were from semi-urban areas.

Table 6: Distribution of Clinical Variables of Primipara LSCS Mothers

Clinical variables		Primipara LSCS mothers	
		No.	%
Regular antenatal visit	Yes	30	100
	No	-	-
Weeks of gestation	29-36 weeks	-	-
	37-40 weeks	30	100
	41-42 weeks	-	-
Frequency of breast feeding / day	2-3 times / day	-	-
	4-5 times / day	-	-
	6-7 times / day	20	66.7
	8-10 times / day	10	33.3
	>10 times / day	-	-
Duration of each breast feeding	< 5 minutes	-	-
	5-10 minutes	30	100
	11-15 minutes	-	-
	>15 minutes	-	-
Interval between each breast feeding	One hour	25	83.3
	2 hours	5	16.7
	4 hours	-	-
Did you give prelacteal feeds?	Yes	-	-
	No	30	100
Did you give any additional feed to the baby along with breast feeding?	Yes	-	-
	No	30	100

Table 6 shows the clinical variables among primipara LSCS mothers. All (100%) attended regular antenatal visits and were in the 37-40 weeks of gestation. Regarding breastfeeding, 66.7% breastfed 6-7 times/day, and 33.3% breastfed 8-10 times/day. All mothers (100%) breastfed for 5-10 minutes per session. Most (83.3%) breastfed every hour, while 16.7% breastfed every two hours. None of the mothers (100%) gave prelacteal or additional breastfeeding.

Table 7: Distribution of breast engorgement among primipara LSCS mothers (on 3rd and 5th postpartum days)

Breast engorgement	3 rd Postpartum day		5 th Postpartum day	
	No.	%	No.	%
Single breast	5	17	-	-
Both breasts	11	37	-	-

Table 7 shows that 54% of primipara LSCS mothers had breast engorgement on the 3rd postpartum day, with 17% having it in one breast and 37% in both. By the 5th postpartum day, no mothers had engorgement in either breast, indicating the effectiveness of lactational counseling in preventing breast engorgement.

Table 8: Distribution of level of breast engorgement among primipara LSCS mothers on 3rd and 5th postpartum days.

Level of breast engorgement	3 rd postpartum day				5 th postpartum day			
	Single breast		Both breasts		Single breast		Both breasts	
	No.	%	No.	%	No.	%	No.	%
Free from breast engorgement	-	-	-	-	5	31	11	69
Mild breast engorgement	5	31	11	69	-	-	-	-
Moderate breast engorgement	-	-	-	-	-	-	-	-
Severe breast engorgement	-	-	-	-	-	-	-	-

Table 8 reveals that among the 16 mothers with engorgement, 31% had mild engorgement in one breast and 69% in both breasts on the 3rd postpartum day. By the 5th postpartum day, no mothers had engorgement, highlighting the effectiveness of lactational counseling in preventing it.

Table 9: Distribution of level of newborn feeding behaviour among newborn babies of primipara LSCS mothers

Feeding behaviour	3 rd postpartum day		5 th postpartum Day	
	No.	%	No.	%
Poor latching	3	10	-	-
Moderate latching	13	43.3	-	-
High latching	14	46.7	30	100

Table 9 shows that 10% of newborns had poor feeding behavior, and 46.7% had high feeding behavior on the 3rd postpartum day. By the 5th day, all newborns had high feeding behavior, indicating effective lactational counseling.

Table 10: Comparison of the level of breast engorgement between phase- I and phase-II among primipara LSCS mothers (on 3rd and 5th postpartum days.

Level of breast engorgement	Phase –I (N= 30)								Phase- II (N=30)							
	3 rd Postpartum day (n=18)				5 th Postpartum day (n=18)				3 rd Postpartum day (n=16)				5 th Postpartum day (n=16)			
	Single breast		Both breasts		Single breast		Both breasts		Single breast		Both breasts		Single breast		Both breasts	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Free from breast engorgement	-	-	-	-	4	22	8	45	-	-	-	-	5	31	11	69
Mild breast engorgement	4	22	10	56	-	-	6	33	5	31	11	69	-	-	-	-
Moderate breast engorgement	-	-	4	22	-	-	-	-	-	-	-	-	-	-	-	-
Severe breast engorgement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10 compares breast engorgement levels between Phase I and II. In Phase I, 60% of mothers had engorgement on the 3rd postpartum day, with 22% having mild and 22% moderate engorgement. In Phase II, 54% had engorgement, with 31% having mild engorgement. By the 5th day, no Phase II mothers had engorgement, while 33% of Phase I mothers still had mild engorgement, highlighting the effectiveness of lactational counseling in Phase II.

DISCUSSION

This chapter discusses the findings of the study on the effectiveness of lactational counseling for breast engorgement and newborn feeding behavior among primipara mothers at a selected hospital in Chidambaram.

Phase I:

- **Demographic & Clinical Variables:** Most primipara mothers were aged 26-30 years, housewives, and from rural areas. A large proportion (60%) had cesarean deliveries, with 50% breastfeeding 6-7 times per day. These findings align with similar studies (Hassan et al., 2020; Padmasree et al., 2017).
- **Breast Engorgement:** 62% of mothers had breast engorgement, with 26% having mild engorgement in a single breast on the 3rd postpartum day. This was consistent with Indrani & Sowmiya (2019), who found 65-75% of mothers experienced engorgement.
- **Factors Linked to Breast Engorgement:** Key factors included poor positioning, inadequate suckling, and lack of antenatal preparation. These findings contrasted with studies by EI-Saidy & Aboushady (2016) and Goyal et al. (2016), which identified latch issues and sucking difficulties.

Phase II:

- **Socio-Demographic & Clinical Variables:** In Phase II, primipara LSCS mothers were predominantly Hindu, with a balanced education level (primary school to graduate). Most (80%) lived in nuclear families, and all were housewives. These findings were supported by studies by Hemavathi et al. (2019) and Tiruye et al. (2018).
- **Clinical Variables:** Most mothers fed their babies every two hours, and none gave prelacteal feeds. This was consistent with studies by EI-Saidy & Aboushady (2016) and Gupta et al. (2018).
- **Breast Engorgement:** In Phase II, 54% of mothers had engorgement on the 3rd postpartum day, with 31% having mild engorgement in one breast. By the 5th day, no mothers had engorgement. This was consistent with findings from Tiruye et al. (2019) and Hassan et al. (2020).
- **Newborn Feeding Behavior:** Initially, 10% of babies had poor feeding behavior, but by the 5th day, all newborns showed high feeding behavior. This improvement aligns with studies by Devi et al. (2018) and Reena et al. (2015), indicating effective lactational counseling.

CONCLUSION

The present study assessed the breast engorgement and newborn feeding behaviour among primipara mothers. After the lactational counseling on breast engorgement and newborn feeding behaviour with PPT by using laptop there was reduced the breast engorgement and improvement of newborn feeding behaviour on 5th postnatal day compared to 3rd postpartum day. The study concluded that the lactational counseling was effective on prevention of breast engorgement and improving the newborn feeding behaviour.

RECOMMENDATION

Planned education programme can be given to all postnatal mothers in hospital settings regarding lactational counseling.

REFERENCES

1. Thomas, S., Mohanty, N., and Dasila, P. (2018). Effect of antenatal lactation counseling on knowledge and breastfeeding practices among mothers. *International Journal of Health Sciences and Research*, 8(2), 138-148.
2. Gavhale R., and Moon, S. (2021). To Evaluate the Effectiveness of Lactational Counseling on Prevention of Breast Engorgement among Postnatal Mothers. *J Evolution Med Dent Sci/ Eissn*10(10), 663-6.
3. Devi, S., Siddiqui, A., Sheoran, P. and Kaur, S. (2018). Knowledge and Newborn Feeding Pattern Assessment Regarding Breast Feeding among Postnatal Mothers: A Cross Sectional Descriptive Study. *International Journal of science and healthcare Research*, 3(3), 68-72.
4. EI-Saidy, T. and Aboushady ,R. (2016). Effect of Two Different Nursing Care Approaches of Breast Engorgement among Postnatal Women. *Journal of Nursing Education and Practice*, 6 (9), 18-27.
5. Varghese, B., and Patwa, A. (2020). Effectiveness of Hospital Based Teaching Programme on Knowledge Regarding Home Management for Breast Engorgement Among Postnatal Mothers. *International Journal of Research and Review*, 7(6), 486-493.
6. Vijayalakshmi, P. and Mythili, D.(2015). Knowledge , Attitudes and Breast Feeding Practices of Postnatal Mothers: A Cross Sectional Survey. *International Journal of Health Sciences*, 9(4), 365-371.
7. Thomas, A., Chhuugani. and Thokchom. (2017). A Quasi – Experimental Study to Assess the Effectiveness of Chilled Cabbage Leaves on Breast Engorgement among Postnatal Mothers Admitted in a Selected Hospital of Delhi. *International Journal of Nurses Midwif. Res*, 4(1).
8. Kannaiah, B., Mohan, R., Snigdha and Sharada (2019). Impact of Lactation Counseling to Mothers on Breast Feeding Practices. *International Archives of Integrated Medicine*, 6(2), 13-22.
9. Goyal, C.R., Banginwar, S.A., Ziyu, F. and Toweir, A. (2016). Breast Feeding Practices: Positioning, Attachment (Latch- on) and Effective Suckling- A Hospital – Based Study in Libya. *Journal of Family and Community Medicine*, 18(2), 74-79.
10. Hassan, H., EL- Kholy., Aetya, A., and Hassan. A., (2020). Breast Engorgement Among women with Caesarean section Impact of Nursing Intervention. *Education, Society and Hassan Studies*, 1(2), 22-54.
11. Hemavathy, V., Sarathi, S. and Shekharan, H. (2019). A Study to Assess the Effectiveness of Lactational Counseling on Breast Engorgement Among Postnatal Mothers at Selected Hospital in Chennai. *International Journal of Current Advanced Research*, 08(05), 18897- 18899.
12. Indrani, D. and Sowmiya, MV, (2019). A study to Find the Prevalence of Breast Engorgement among Lactating Mothers. *HSOA Journal of Reproductive Medicine, Gynaecology and Obstetrics*, 4(2), 1-5.

13. Padmasree, S., Varghese, L., and Krishna, A. (2017). Effectiveness of Prenatal Teaching on Prevention of Breast Engorgement. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 6(9), 3927-3931.
14. Reena, Rajeswari, S. and Sumathi, R., (2015). Effectiveness of Lactational Counseling on Breast Engorgement and Newborn Feeding Behaviour among Primigravidae at Sri Ramachandra Hospital. *Journal of Medical Science and Clinical Research*, 3(9), 7396-7403.
15. Tiruye, G., Mesfin, F., and Shiferawn, K. (2018). Breast Feeding Technique and Associated Factors Among Breast Feeding Mothers in Harar City, Estern Ethiopia. *International Breast Feeding Journal*, *International Breastfeeding Journal*, 13(5), 1-9.
16. Gupta, S.A., Sharma, M., Ekka, A., and Verma. (2018). Effect of Health Education on breastfeeding techniques among postnatal mothers admitted in a tertiary care centre of Raipur city, Chattisgarh, *International Journal of Community Medicine and Public Health*, 5 (10), 4340-4344.
17. Razmjouei, P., Moghaddam, S.K., Heydari, O., Mehdizadeh, B., Tabarestani, M., et.al (2020). Investigating the Effect of Non- Pharmacological Treatments on Reduction of Breastfeeding Women: A Review Study, *International Journal of Pediatrics*, 8 (3), 11041-11047.
18. Abbas, I.M., Hassan, R.T., (2015). Assessment of LATCH Regarding Initiation of Breastfeeding among Women after Childbirth. *IOSR Journal of Engineering (IOSRJEN)*, 5(5), 38-44.
19. Varalakshmi, K., Nagarathna, B., and Kiran, C., (2020). “A Study to Assess the Effectiveness of Lactational Counseling on Breast Engorgement and Newborn Feeding Behaviour Among Antenatal Mothers At CEmONC Centre, District Hospital, Madanapalli.” *International Journal of Creative Research Thoughts (IJCRT)*, 8(12), 159- 168
20. Hassan, H., EL- Kholy., Aetya, A., and Hassan. A., (2020). Breast Feeding Knowledge and Practices among Primiparous Women with Caesarean Section: Impact on Breast Engorgement in Upper.