

Assessing the Prevalence of Lactation Insufficiency with a View to Develop an Instructional Module to Promote Successful Lactation among Primipara Mothers in Chennai (Tamilnadu)

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Abstract

Breastfeeding is a traditional practice that comes 'naturally' to Indian mothers. This study sought to assess the prevalence of lactation insufficiency and to find out the association between prevalence of lactation insufficiency among primipara mothers with selected background variables. This descriptive cross-sectional study was conducted in a selected maternity hospital of South India between May–July 2020. A total of 103 mothers in the post-natal wards were selected. Lactation insufficiency was assessed using LATCH scoring system. Data were analysed using descriptive and inferential statistics. Majority of the mothers (53, 52.48%) were in the age group 26-30 years; 56 (54.37%) studied higher secondary; 93 (90.29 %) received information on breastfeeding; 61 (59.23%) had least favourable and 42 (40.77%) had favourable LATCH scores. Chi square revealed no significant association between lactation insufficiency and selected background variables among mothers. To conclude, there is a need to strengthen nurse-led lactation support to achieve successful breastfeeding practices.

Key words: Breastfeeding, Lactation insufficiency, Primipara mothers

Mother's milk, time-tested for millions of years, is the best nutrient for babies because it is nature's perfect food. - Robert S. Mendelsohn

Lactation describes the secretion of milk from mammary glands, the time period that a post-natal mother lactates her baby. The word lactation comes from a Latin word root meaning "milk." Mothers milk is a gold standard that covers all needs of a new born by providing optimal nutrition as well as protective anti-infective substances. Lactation is controlled by numerous exocrine glands particularly the pituitary hormones prolactin and oxytocin. It is influenced by the baby's sucking and by maternal emotions. Colostrum is the creamy yellow substance which is rich in nutrients for the baby and also has maternal antibodies which protects the new born from infections. So, lactation is essential for the new born baby and it promotes the health of the baby.

As per the data of UNICEF (2016) the rate of early initiation of breastfeeding remains 44 percent in the world, 39 percent in South Asia and 41 percent in India. World Health Organization (WHO) recommends exclusive breastfeeding for six months duration; further, to initiate complementary foods

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at six months of age while the mother continues to concurrently breastfeed her baby up to 24 months of age. Mother's Absolute Affection (MAA) is a nationwide programme of the Ministry of Health and Family Welfare since 2016 targeted to revitalise efforts towards promotion, protection and support of breastfeeding practices through health care systems to achieve higher breastfeeding rates.

Need for the Study

Lactation insufficiency means low breast milk supply, that does not fully meet the nutritional needs of new born. Bansal (2013) stated that in spite of all policies and strategies applied to promote, protect and normalise breastfeeding, we are not able to achieve targeted goal. The reasons are multifactorial:

- Lack of proper information to mothers;
- Lack of counselling on feeding of infants;
- Lack of proper feeding skills;
- Inadequate health care support;
- Inability of health care provider to help mothers experiencing breastfeeding difficulty;
- Aggressive promotion of baby foods by indus-

tries; and

- Lack of proper support structures - community, work places and creches.

Dr Mangala Wani (2013) during IYCF chapter of IAP stated that about 80 percent women perceive that milk supply was inadequate at some stage during first 4 months. Also, true lactation failure is rare. The two gold standards to know if the baby is getting enough breastmilk being: if an exclusively breastfed baby is urinating at least 6-7 times in 24-hour period, gains at least 500 gm every month and baby doubles the birth weight in about 5 months and triples in one year.

Insufficient milk supply is the foremost reason given by mothers for discontinuation of breastfeeding during first 6-8 weeks postpartum. Maternal reassurance and emotional support play a significant role in reducing the lactation problems. The present study aimed to assess the prevalence of lactation insufficiency with a view to develop an instructional module to promote optimal outcomes by a simple but effective way of implementing appropriate steps towards promotion of exclusive breastfeeding.

Objectives

1. To assess the prevalence of lactation insufficiency among primipara mothers in a selected hospital of Chennai (TN).
2. To find out the association between prevalence of lactation insufficiency among primipara mothers with selected demographic variables.

Literature Review

Hariprasad et al (2017) aimed to identify the lactation problems among post-natal mothers and to compare the rate of lactation problems among mothers delivered by vaginal route and LSCS. Among 200 mothers who participated in the study, 100 had vaginal delivery and 100 had LSCS. Primigravidae 82 (83.67%) had more lactation problems than others (16, 16.32%) and the association was statistically significant ($p < 0.05$). Initiation of breastfeeding was started within one hour in 34 percent of normal babies while only 2 percent babies of LSCS were initiated breast feeds within one hour. 40 percent of normal and 74 percent of LSCS babies were given within the first 1-3 hours of birth. Statistical analysis showed that it was significant ($p = 0.001$). No breast milk was offered to 5 percent of babies of normal deliveries and 3 percent of LSCS babies. Considering the position of feeding, sitting posture was assumed by 58 percent of mothers with normal delivery comparing with 39 percent of LSCS mothers. Women who received antenatal advice regarding techniques of breast feeding from health care providers or family members had less lactation problems than women who did not receive; the dif-

ferences were statistically significant ($p < 0.05$).

Mise et al (2017) studied breastfeeding practices and problems among 112 mothers' post-natal mothers in KIMS Hubli, Hospital IPD and OPD. The findings showed that 43 (38.4%) mothers initiated breast-feeding practices within 1 hour after the delivery, 63.4 percent of the infants received exclusive breast feeding, 40 percent lactation failure and 50 percent unsatisfactory growth of baby being the main reasons for early weaning. The study urges that there is a need of giving information regarding breast feeding during antenatal visits to inform the mothers regarding proven advantages of exclusive breastfeeding.

Sreekantham et al (2019) evaluated factors responsible for lactation failure. The authors found the existing overall prevalence of lactation failure as 26 percent. EBF was found to be more prevalent among illiterate mothers also many factors affect a pregnant woman's decision to choose to breast-feed (social conditions, her or others' personal experiences, economic and family considerations, religious or ethnic beliefs). Further, mothers are uninformed about the benefits and advantages of breastfeeding while others are unprepared for the initial difficulties that they may face. The association between maternal education and EBF was statistically insignificant in this study with a p -value > 0.05 . It was concluded that antenatal counselling is essential to decrease the rates of lactation failure as it increases the preparedness of the mother to give breastfeeding.

Methodology

A descriptive cross-sectional was conducted in a renowned Maternity Centre, Chennai. Based on inclusive criteria, 103 primipara mothers were selected using convenient sampling technique. The tool consisted of two parts: Part I - Background variables such as, age, education, occupation, family monthly income, type of family, habitant, received related information, gestational week at time of delivery, sex and birth weight of the baby. Part II - LATCH Breastfeeding assessment tool by Jenson D, Wallace S, Kelsay P (1994), assigned a numerical score of 0, 1, or 2 to 5 key components of breastfeeding for a possible total score of 10 points. Scoring: Least favourable 1- 3 Favourable 4 - 6, Most favourable 7 - 10 (Tables 1 & 2).

The tool was validated by experts in the field of Nursing. The reliability value of the tool using Test and retest method was 0.9, which was found to be feasible and reliable. Collected data was tabulated, analysed by descriptive and inferential statistics.

Ethical considerations: Obtained ethical clearance from respective authorities and informed consent, confidentiality and privacy of study participants.

Table 1: LATCH scoring with description

	0	1	2	Score
L - Latch	Too sleepy No sustained latch or suck	Repeated attempts for latch or suck Hold nipple in mouth	Grasps breast, Tongue down, Lips flanged, Rhythmical sucking	
A - Audible swallowing	None	A few with stimulation	Spontaneous and intermittent (<24 hrs)	
T - Type of nipple	Inverted	Flat	Everted (after stimulation)	
C - Comfort	Engorged Cracked, bleeding, large blisters, or bruises	Filling reddened, small blisters or bruises	Soft Non-tender	
H - Hold	Full assist (staff holds infant/breast)	Minimal assist (staff holds, then mother takes over)	No assist from staff Mother able to position and hold infant	
				TOTAL:

Results

Majority of the participants (53, 52.48%) were in age group 26-30 years; 56 (54.37%) studied higher secondary; 50 (48.54%) had between Rs. 20001-30000/- monthly; 64 (62.14%) were employed; 68 (66.02%) belonged to nuclear family; 93 (90.29 %) received information on breastfeeding; 90 (87.38%) were between 38-39 weeks of gestational week at time of delivery; with regard to sex of child, 58 (56.31%) delivered

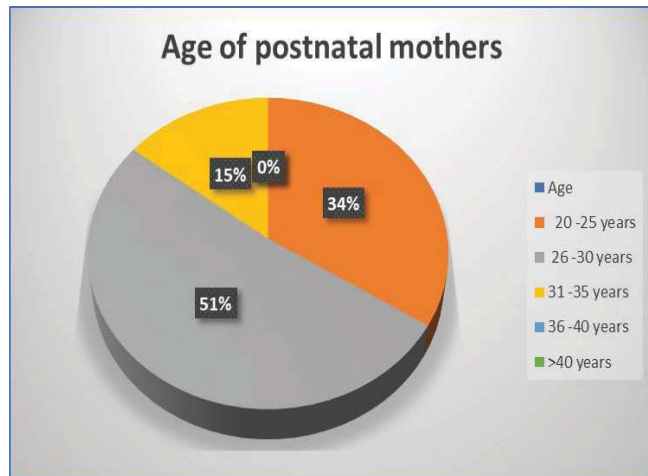


Fig 1: Percentage distribution of age of post-natal mothers.

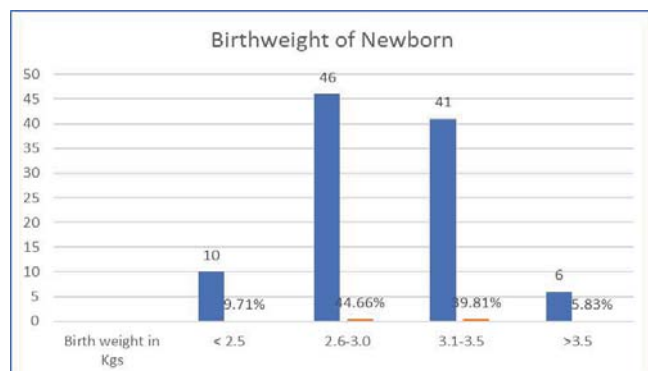


Fig 2: Percentage distribution of birth weight of newborn.

male child; birth weight of 46 (44.66%) was between 3.1-3.5 kg.

In regard to association, Chi square test revealed no significant association between prevalence of lactation insufficiency among primipara mothers with selected demographic variables.

Discussion

Following delivery post-natal mothers experience: There was generalised myalgia, post-caesarean pain or perineal pain due to episiotomy/instrumental delivery, breast

pain owing to cracked nipples or engorgement as a result of improper latch, till they reach a level of personal comfort. Among 103 mothers, 93 (90.29%) received related information on breastfeeding practices; 61 (59.23%) mothers had least favourable LATCH score. Post-natal period is the crucial time when lactation is established, any problem at this point of time can lead to lactation failure, compromising the cognitive and physical growth of the baby. Information, education and communication regarding exclusive and successful breastfeeding will play a major role to bring down the incidence of lactation problems among postnatal mothers. There was no significant association between prevalence of lactation insufficiency study in contrary to the results obtained from the studies done by Kronborg & Vaeth, (2009) and Goyal et al (2011) where demographic characteristics such as age of the mother and level of education showed significant impact on lactation problems.

Nursing Implications

Nursing Education

- The nurse educator needs to strengthen rich clinical experience to the students to uplift their knowledge, attitude and practice regarding breastfeeding.
- Avenues to bring out innovative and creative ideas pertaining to effective teaching and practice on breastfeeding is required for student

Table 2. Level of LATCH score among post-natal mothers (N= 103)

Level of LATCH score	n	%
Least favourable	61	59.23
Favourable	42	40.77
Most favourable	0	0.00
Total	103	100.00

nurses which in turn promotes effective utilisation of evidence-based practice in respectful maternity care.

Nursing Practice

- The nurse's role in support of breast feeding varies with the time and place; pre-natal nurse can educate the advantages of breastfeeding, labour and delivery nurse can aid the mother in her first contact with baby and reassure the mother following Caesarean birth, postpartum nurse can involve in skilled lactation support by providing maternal-infant contact, ensuring support at times of problems in feeding; nursery nurse supports breast feeding by refraining from giving the baby other fluids. Paediatric nurse reinforces the statements and actions which will further impress the mother with the appropriateness of her infant feeding method and telephone triage system.
- In each setting, the nurse midwife demonstrates a significant role in helping the mother and new born by direct assistance, educating with the use of instructional module.

Nursing Administration

- Nursing administrators need to provide necessary physical facilities in antenatal and post-natal clinic for counselling, strengthening primi mothers on various aspects of exclusive breastfeeding as mother craft courses.
- Also exhibits on policies, wild posting and efforts to breast feeding practices in maternity units can drive mothers and family attention to positive breast-feeding outcomes.

Nursing Research

- The research findings need to be disseminated through conference, seminar, publication in professional, national and international journals which would signify the need for its inclusion in the curriculum and further researches.
- Studies relating to practice of alternative and complementary therapies, nurse-led lactation management needs to be strengthened in order to create constructive work of lactation nurse specialist.

Recommendations

A longitudinal study may be carried out using more aspects of study variables. A similar study can be carried out in the urban and rural areas to find out the difference in lactation practice.

Conclusion

Lactation benefits both the mother and the baby. The present study reveals that there is lactation insufficiency among primipara mothers. Lactation

specific education via written and illustrated modules, video presentations are a simple but effective way of implementing appropriate steps towards promotion of exclusive breastfeeding. The investigator designed a simplified instructional module for supporting, addressing the basics of lactation necessary for post-natal mothers and new-borns.

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