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Original Research Article

Pre lacteal feeding practice among rural mothers in Tamilnadu – A questionnaire based study

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Abstract

Background: Breast feeding is undoubtedly the best in providing an infant with ideal nourishment, protection from infections and bonding to the mother. Exclusive breastfeeding (EBF) is recommended as the optimum method of feeding for the first 6 months of life. In many countries across the world, the practice of giving new born babies other substances (pre lacteal feeding) even before lactation has been initiated is a common cultural practice. This study was conducted to estimate the prevalence of pre lacteal feeding practices in the target population & to identify the common pre lacteal feeds administered.
Methods: This study was conducted in Vellore district; a total number of 350 mothers took part in this study. Pretested and predesigned questionnaire was used to interview mothers regarding pre lacteal feeding practices of newborns.
Results: 52 (14.8 %) mothers had given pre lacteal feeds to their child out of which, 25 (48.07 %) were male and 27 (51.92%) were female children, this difference in pre lacteal feeding among male and female children was not found to be statistically significant. The literacy status of the mother and the type of family had a statistically significant association (p-Value < 0.05).
Conclusion: Pre lacteal feeds are very common and are an important factor in delaying the initiation of breast feeding. These delay the milk letdown reflex and could contribute to lactation failure. Hence patient education should include curtailing the use of pre lacteal feeds in addition to promoting early initiation of breast feeds.
Keywords: Pre lacteal feeding, Infant.

1. Introduction

Various studies have time and again stressed upon the role of breast feeding in the prevention of a wide range of childhood infections and its positive implication in overall child survival[1]. Apart from the duration of breast feeding and the time at which a child is weaned, the time of initiation of breast feeding also plays a crucial role in determining the health of the child[2].

In many countries across the world, the practice of giving new born babies substances other than breast milk is a common cultural practice[3]. When the babies are given such fluids, even before lactation has been initiated, it is called pre-lacteal feeding, and the fluids are called pre-lacteal feeds[4]. Studies have shown that the effects of pre-lacteal feeding in babies range from lactation failure, shortening of the duration of breast feeding to the incidence of diarrhoea[5].

In India, pre lacteal feeds that are usually given include honey, sugar water, ghee or other herbal preparation. The pre lacteal chosen may be specific to a family, caste, or religious group[6]. The delay of breast feeding and the practice of feeding pre lacteals to the child have been reported in second century BC, brahminical literature[7]. According to the Hindu cultural and religious beliefs, pre lacteals

have positive effects on the new born's gastrointestinal and genitourinary systems. Pre lacteals such as honey or ghee are believed to evacuate meconium and reduce colic. It is also presumed to be a laxative[7].

2. Methodology

This study was conducted in Vellore district, one of the larger districts in the state of Tamilnadu, with a land area extending to 6077 square kilometers. The total population in Vellore district as per the 2011 census stood at 3928106, with male members of 1959676, and the females numbering 1968430. Vellore district is unique in one aspect, that it borders the neighbouring state of Andhra Pradesh. The revenue district of Vellore is divided into two Health Unit Divisions, Vellore – HUD and Tirupattur - HUD each under a Deputy Director of Health services. There are 10 rural blocks in each of these health unit divisions. Vellore health unit division, consist of 35 primary health centres. This study was conducted in 5 randomly selected primary health centre areas in Vellore health unit division.

An informed consent was obtained from each one of the mothers who were willing to participate in the study. A total number of 350 mothers took part in this study.

Pretested and predesigned questionnaire was used. Interview was taken from mothers regarding pre lacteal feeding practices of newborns, the type of pre lacteal feed used, their educational status. The data was tabulated on Microsoft Excel sheet and analyzed using the software SPSS version 17.0. Discrete data was analyzed using Chi-square test.

3. Results

350 mothers took part in this study. The minimum age of the mother was 19 years and the maximum age was 30 years, with a mean age of 24 years and 3 months. Of those 350 mothers, 52 (14.85%) had given pre lacteal feeds to their child. There were 25(48.07%) male and 27 (51.92%) female children out of those 52 who were administered pre lacteal feeds. This difference in pre lacteal feeding among male and female children was not found to be statistically significant.

Similarly, when the birth order of the child was taken into account, 32 (14.47%) of the first born, and 20 (15.50%) of the children born later were given pre lacteal feeds. This association was also not statistically significant.

Whereas, the literacy status of the mother and the type of family had a statistically significant association (p-Value < 0.05) with pre lacteal feeding practice, with 16.78 % of the mothers who were illiterates or primary school educated, administering pre lacteal feeds to their child, and only 5.17 % of the mothers who had completed the high school education or above followed the practice. Similarly, among the children who were born in nuclear families, 9.74% were fed with pre lacteals and 18.87% of children from joint families were given the same. This association was found to be statistically significant. (p-Value < 0.05).

Table-1: Association between sex of the child, Birth order, literacy status of the mother, type of family and pre lacteal feeding.

	Pre lacteal feeds given (n-52)	**Pre lacteal feeds not given(n-298)**	**X^2 / P- value (df – 1)**
Sex of the child			
Male	25	167	1.133 / 0.286
Female	27	131	
Birth order			
1st child	32	189	0.067 / 0.794
2nd and above	20	109	
Literacy status of the mother			
Illiterate and Primary School educated	49	243	5.154 / 0.023*
High school and above	3	55	
Type of Family			
Nuclear	15	139	5.691/ 0.017*
Joint	37	159	

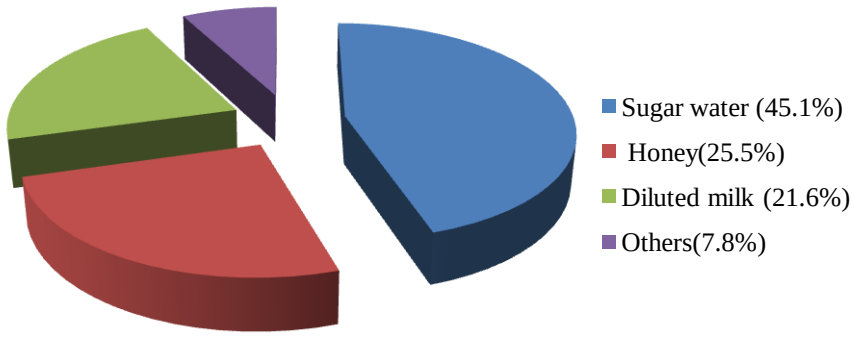
When the mothers were quizzed about the reason attributed to the practice of pre lacteal feeding, nearly half the number of mothers (48%) opined that administration of pre lacteal feed is a socio cultural practice that has been followed in the family for generations. Some of the other reasons that the mothers stated were, 'The throat will get dry' and there was 'no adequate milk to feed the baby'. When the mothers were asked about the individuals, who actually initiated the pre lacteal feed, 59.6% of them replied that it was their mother who initiated the pre lacteal feed, followed by 25.0% who attributed the pre lacteal feed to their mothers in law.

Table-2: Reasons attributed for giving Pre lacteal feeds and the persons who initiated the pre lacteal feed.

Reason attributed for giving Pre lacteal feeds	Numbers (n -52)	Percentage
Socio-cultural practice	25	48.07 %
Throat gets dry	16	30.76%
No adequate milk	11	21.15%
Who initiated the Pre lacteal feed		
Mother	31	59.6%
Mother in law	13	25.0%
Self	2	3.8%
Others	6	11.5%

Regarding the variety of food stuffs that were given as pre lacteal feeds to the children; the most common one was sugar water (45.1%), followed by honey (25.5%) and diluted cow's milk (21.6%).

Fig-1: Types of Pre lacteal feed given



4. Discussion

Prevalence of pre lacteal feeds was found to be 14.8% in our study population. Another study by Gupta *et al*[8] also has reported similar results (10.2%). However, much higher prevalence has also been reported in studies by Salve Dawal *et al*[9] conducted in rural Maharashtra as 42.7%. Singh *et al*[10] has reported 52% in Mysore, Karnataka. The prevalence of pre lacteal feeding in the current study was less compared to the two above studies. This could be due to the fact that in Tamilnadu, there is almost 100% institutional delivery.

There was no significant association between the sex of child and the pre lacteal feeding in our study which is also documented in studies by Gupta *et al*.[8]

In our study, the literacy status of the mother was found to be significantly associated with the pre lacteal feeding practices. This finding is consistent with Raval *et al*[11] who found higher percentage of illiterate mothers (85.2%) had given pre-lacteals to their children as compared to 50.9% of literate mothers and the observed difference according to education of mother was statistically significant (p-Value < 0.05).

Prevalence of pre lacteal feeds was found to be more (71.15%) in mothers from joint family structure compared to (28.84%) mothers from nuclear family. This association was found to be statistically significant. (p-Value < 0.05) in our study. Similar significant association was established in studies by Salve Dawal *et al*[9].

Our study also established that elders in home especially the mothers and mother in laws who were less educated, less informed about the current practice of the breastfeeding were the main influence (84.6%) for the pre lacteal feed which is also documented in studies by Khanal *et al*[11].

The current study further revealed that major reasons for the pre lacteal feeding were primarily socio-cultural practice (48.07%), throat gets dry (30.76%) and inadequate milk (21.15%).

In this study sugar water (45.1%) was found to be the most common pre lacteal feed, followed by the honey (25.5%) and diluted milk (21.6%). Studies by Ibadin *et al*[12] also have reported similar findings.

5. Conclusion

It is disheartening to report prevalence of pre lacteal feeds among mothers even in this era of information and communication. Exclusive breast feeding for the first six months can still be achieved by education of mothers during antenatal care. The aim of maternal and child health care should be to achieve zero percent pre lacteal feed. To achieve this, Health education should be the mainstay.

References

[1] Bhandari N. An Educational Intervention to Promote Appropriate Complementary Feeding Practices and Physical Growth in Infants and Young Children in Rural Haryana in India. *Journal of Nutrition*. 2004; 134:9.

[2] '10 facts on breastfeeding', World Health Organisation, July 2012, http://www.who.int.

[3] Ajay Gosvami. Analytical study of prevalent and traditional Prelacteal feeding practices and their relevance: *Indian Journal or Preventive and Social Medicine*. 2009; 40 (3&4).

[4] Meera Sadagopal. Her Healing Heritage: Study conducted in 7 states of India through LPSS & CHETNA, Ahmedabad, 1986

[5] Punia S, Chhikara S, Sangwan S. Infant feeding and weaning practices in selected cultural zones of Haryana. *Ind J Nutr Dietet* 1997: 34: 102-105

[6] Anuradha Goyle *et al*, Colustrum and Prelacteal feeding practices followed by families of pavement and roadside squatter settlements: *Indian Journal or preventive and social medicine*. 2004; 35(1&2).

[7] Ray *et al*, Prevailing practices and beliefs related to breast feeding and top feeding in an urban slum community of Varanasi. *Indian J Prev Soc Med* 1997: 28 (1 &2):37-45.

[8] Gupta RK, Nagori G; A study on changing trends and impact of ante-natal education and mother's educational status on pre-lacteal feeding practices. *J Pharm Biomed Sci*., 2012; 19(19): 1-2.

[9] Salve Dawal *et al*., Study of Pre Lacteal Feeding Practices and its Determinants in a Rural Area of Maharashtra. *Sch. J. App. Med. Sci*., 2014; 2(4D):1422-1427.

[10] Singh J, Vishakantamurty DG, Charan PM; Breastfeeding practices among lactating mothers: problem and prospect in cross sectional study. *Int J Health Allied Sci*., 2012; 1(2): 54-58.

[11] Khanal V, Adhikari M, Sauer K, Zhao Y; Factors associated with the introduction of prelacteal feeds in Nepal: findings from the Nepal Demographic and Health Survey 2011. *International Breastfeeding Journal*, 2013; 8: 9.

[12] Ibadin O M, Prelacteal feeding practices among lactating mothers in Benin City, Nigeria. *Niger J Paed* 2013; 40 (2): 139 –144.