

Original Research Article

Pre lacteal feeding practice among mothers in a rural area of Karnataka: a cross sectional study

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ABSTRACT

Background: In many countries across the world, the practice of giving new born babies other substances (pre lacteal feeding) even before lactation is a common cultural practice. The objectives of the study were to determine the prevalence of pre lacteal feeding practice among mothers and to identify the factors leading to pre lacteal feeding.

Methods: A community based, cross sectional study was conducted among 206 mothers of infants and children younger than 24 months, residing in a rural area of Karnataka. Data regarding pre lacteal feeding practice, type of pre lacteal feed given, reasons for giving pre lacteal feed was collected using a predesigned questionnaire prepared in local language. Institutional ethical committee approval, informed consent from the study participants was taken and anonymity, confidentiality was ensured.

Results: Out of 206 study participants, 66 (32.03%) had given pre lacteal feeds to their newborn, while 140 (67.97%) had not given pre lacteal feeds to their newborn. Pre lacteal feeding practice was more among mothers who were illiterates, who belonged to lower socio economic status. This difference in prevalence of pre lacteal feeding practice was found to be statistically significant. Honey, sugar water, religious water, coconut water, jaggery are the different types of pre lacteal feeds given. Customs, insisted by relatives, development of speech, helps in digestion, cleanses digestive system were the reported reasons for giving pre lacteal feeds.

Conclusions: Socio demographic factors like education, socio economic status influence pre lacteal feeding practice. Through IEC (Information, education communication) activities awareness regarding ill effects of pre lacteal feeding practice should be created among mothers.

Keywords: Pre lacteal feeding, Mothers, Rural area

INTRODUCTION

Colostrum, the early breast milk plays a vital role in boosting the immunity of a newborn.^{1,2} It also helps in building the precious bond between the mother and the child. 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 child.³

In many countries across the world, the practice of giving new born babies substances other than breast milk is a common cultural practice.⁴ 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.⁵ Studies have shown that the effects of pre-lacteal feeding in babies range from lactation failure, shortening of the duration of breast feeding due to the incidence of diarrhoea.⁶

Unfortunately, due to different customs and misbeliefs, the habit of pre lacteal feeding is common in our society. With discarding colostrum, delay in initiation of breast feeding, a marked increase in neonatal mortality has been reported from different parts of the world.⁷

In India, pre lacteal feeds that are usually given include honey, sugar water, ghee or any other herbal preparation. This may be specific to a family, caste or religion.⁸ There are various social beliefs for which pre lacteal feeds are given including that they act as laxatives, cleansing agents, or hydrating agents or as a means of clearing the meconium.^{9,10} As per the surveys done time after time prevalence of pre-lacteal feeding is very high in India and it varies from state to state.

To address the problem, the concept of Baby Friendly Hospital Initiative (BFHI) was launched globally in 1991 by UNICEF and WHO for promoting and supporting breast feeding.¹¹ Including India, many hospitals from different countries have been designated to BFHI. Still available literatures from India depict a poor picture of widely practiced pre lacteal feeding.

With this background, a study was planned with an objective to determine the prevalence of pre lacteal feeding among mothers in a rural area of Karnataka and to identify the factors leading to pre lacteal feeding.

METHODS

Study area

One of the rural field practice areas of Department of Community Medicine, AIMS, B.G. Nagara, Karnataka.

Study design

Community based, cross-sectional study.

Study period: January 2017 to May 2017.

Study subjects

Mothers of infants and children younger than 24 months residing in the study area. The list of all mothers recently delivered was obtained from the Birth register and ANC register maintained at Anganwadi center and Primary Health Center.

They were initially contacted during one of the Village Health and Nutrition days conducted in the local anganwadi center and were explained about the study.

Inclusion criteria

Mothers of infants and children younger than 24 months, residing in the study area and who gave informed consent for the study participation.

Exclusion criteria

Mothers who had systemic disease, who were not willing to participate in the study.

Out of 215 mothers in the study area, 3 had systemic disease and 6 refused to give informed consent for the study participation.

So, the study subjects constituted all 206 mothers of infants and children younger than 24 months, residing in the study area, who gave informed consent.

Method of data collection

Data was collected using predesigned, pretested, structured questionnaire prepared in local language. The socio demographic details, birth history and breast feeding initiation history were taken.

Institutional ethical committee approval, informed consent from the study participants was taken and anonymity, confidentiality was ensured.

Statistical analysis

Data were entered in MS Excel spreadsheet and descriptive analysis was conducted to describe results in percentages. Association between Pre-lacteal feeding and various socio demographic factors was tested using chi-square test.

RESULTS

In the present study, data was collected from 206 mothers of infants and children younger than 24 months, residing in the study area. The socio demographic characteristics of the study participants are shown in Table 1.

Out of 206 study participants, 66 (32.03%) had given pre lacteal feeds to their children, while 140 (67.9%) mothers correctly practiced not giving pre lacteal feeds (Figure 1).

The various pre lacteal feeds given to newborn child were honey (36.36%), religious water (33.33%), sugar water (18.18%), jaggery (10.60%), and coconut water (3.88%) (Table 2).

The various reasons reported by mothers for giving pre lacteal feeds were custom (42.42%), helps digestion (36.36%), insisted by relatives (25.75%), early development of speech (16.66%), cleanses digestive system (13.63%) (Table 3).

Out of 44 illiterate mothers 29 (65.90%) gave pre lacteal feeds, while majority of mothers 63 (85.13%) and 32 (84.21%) who had education up to secondary and higher secondary did not feed their newborn with pre lacteal feeds. This difference in prevalence of pre lacteal feeding was found to be statistically significant. Majority of 62

(88.57%) mothers belonging to class I socio economic status did not give pre lacteal feeds, followed by mothers belonging to class II 37 (78.72%). While majority of 32(66.66%) of mothers belonging to class IV gave pre

lacteal feeds. This difference in prevalence of practice of pre lacteal feeding was found to be statistically significant (Table 4).

Table 1: Socio Demographic characteristics of study participants.

Demographic characteristics	n(206)	Percentage (%)
Age of women		
15-20	42	20.38
21-25	65	31.55
26-30	55	26.69
31-35	44	21.35
Educational status of women		
Illiterate	44	21.35
Primary education	50	24.27
Secondary level	74	32.92
Higher secondary & above	38	18.44
Socio-economic status		
Class 1	70	33.98
Class 2	47	22.81
Class 3	41	19.20
Class 4	48	23.30
Type of family		
Nuclear	30	14.56
Joint	42	20.38
Extended	134	65.04
Religion		
Hindu	125	60.67
Muslim	64	31.06
Christians	11	5.33
Others	6	2.91

Table 2: Distribution of mothers according to pre lacteal feed given (N=66).

Pre lacteal feeds	n (66)	Percentage (%)
Honey	24	36.36
Religious water	22	33.33
Sugar water	12	18.18
Coconut water	8	3.88
Jaggery	7	10.60

Table 3: Distribution of mothers according to reasons for giving pre lacteal feed (N=66).

Reason for giving pre lacteal feeds	n (66)	Percentage (%)
Custom	28	42.42
Helps digestion	24	36.36
Insisted by relatives	17	25.75
Early development of speech	11	16.66
Cleanses digestive system	9	13.63

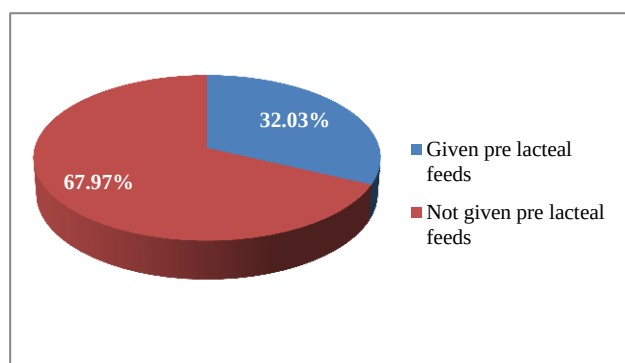
Majority of mothers belonging to joint family 16 (38.09%), followed by mothers belonging to extended family 42 (31.34%), nuclear family 8 (26.66%) gave pre lacteal feeds to their newborn. Majority of mothers belonging to Muslim religion 29 (45.31%), Christians 3 (27.27%), Hindus 32 (25.6%), others 2 (33.33%) had

given pre lacteal feeds to their newborn. However these difference in prevalence of practice of pre lacteal feeding was not statistically significant (Table 4).

History of dog bite found in study population is 11% and 56.3% victims have taken treatment at government hospital.

Table 4: Association between pre lacteal feeding and various socio demographic factors.

Socio demographic factors	Pre lacteal feeds		Total	Chi-square	P-value
	Not given	Given			
Mothers education					
Illiterate	15 (34.09%)	29 (65.90%)	44 (21.35%)	35.90	p<0.0001
Primary	30 (60.0%)	20 (40.00%)	50 (24.27%)		
Secondary	63 (85.13%)	11 (14.86%)	74 (32.92%)		
Higher	32 (84.21%)	6 (15.78%)	38 (18.44%)		
Total	140	66	206		
Socio economic status					
Class I	62 (88.57%)	8 (11.42%)	70 (33.98%)	40.29	p<0.0001
Class II	37 (78.72%)	10 (21.27%)	47 (22.81%)		
Class III	25 (60.97%)	16 (39.02%)	41 (19.90%)		
Class IV	16 (33.33%)	32 (66.66%)	48 (23.30%)		
Total	140	66	206		
Type of family					
Nuclear	22 (73.33%)	8 (26.66%)	30 (14.56%)	0.652	0.721
Joint	26 (61.90%)	16 (38.09%)	42 (20.38%)		
Extended	92 (68.65%)	42 (31.34%)	134 (65.04%)		
Total	140	66	206		
Religion					
Christians	8 (72.72%)	3 (27.27%)	11 (5.33%)	6.817	0.07
Hindu	93 (74.4%)	32 (25.6%)	125 (60.67%)		
Muslim	35 (54.68%)	29 (45.31%)	64 (31.06%)		
Others	4 (66.66%)	2 (33.33%)	6 (2.91%)		
Total	140	66	206		

**Figure 1: Distribution of mothers according to pre lacteal feeding practice (N=206).**

DISCUSSION

In the present study, 66(32.03%) mothers had given pre lacteal feeds to their newborn, while 140 (67.97%) mothers correctly practiced of not giving pre lacteal feeds. Similar findings were reported in studies conducted by Narayan et al and Kumar et al.^{12,13} A study done by Wadde et al reported a higher prevalence of pre lacteal feeding practice among mothers.¹⁴

The present study revealed that with increase in mother's educational status, pre lacteal feeding practice decreased. Majority of illiterate mothers 29 (65.90%) gave pre lacteal feeds while 6 (15.78%) women who had higher

secondary education gave pre lacteal feeds. This difference in prevalence of pre lacteal feeding practice was found to be statistically significant. Similar findings are reported in a study conducted by Gupta.¹⁵

The present study showed that with increase in socio economic status, pre lacteal feeding practice decreases. Low prevalence of pre lacteal feeding practice was seen among women belonging to class I (11.42%), followed by class II (21.27%). Higher prevalence of pre lacteal feeding was seen among women belonging to class III (39.02%), class IV (66.66%). This difference in prevalence of pre lacteal feeding was found to be statistically significant. Similar findings are reported in a studies conducted by Khanal and Misgan Legesse.^{16,17}

In the present study higher prevalence of pre lacteal feeding practice was seen among mothers belonging to joint family (38.09%), followed by extended family (31.34%), nuclear family (26.66%). Higher level of pre lacteal feeding practice was seen among Muslims (45.31%), followed by Christians (27.27%), others (33.33%) and Hindus (25.6%). Similar findings were seen in studies conducted by Roy and Raval.^{18,19} However these differences in prevalence of pre lacteal feeding practice was not statistically significant.

In the present study various pre lacteal feeds given were honey, sugar water, religious water, coconut water, and jaggery. Similar findings were found in studies conducted

by Giridhar, Yadavannar, Goyle.²⁰⁻²² The various reasons given by mothers for giving pre lacteal feeds were family custom, helps digestion, insisted by relatives, belief that it helps in speech development, cleanses digestive system. These results are consistent with the study done by Kangasabapathy.⁸

CONCLUSION

Based on the findings of the study it can be concluded that various socio demographic factors influence pre lacteal feeding. There are widespread misconceptions for withholding colostrum and giving pre lacteal feeds. There is a need to increase the awareness regarding the ill effects of pre lacteal feedings and the harms it causes to infant and mother. Exclusive breast feeding for the first six months can still be achieved by appropriate IEC (Information, education and communication) activities targeting expecting and nursing mothers.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

- Stephensen CB. Vitamin A infection and immune function. *Annu Rev Nutr.* 2001;21:167-92.
- Goldman AS. Modulation of the gastrointestinal tract of infants by human milk. Interfaces and interactions. An evolutionary perspective. *J Nutr.* 2000;130(2):426-31.
- '10 facts on breastfeeding', World Health Organisation. Available at: <http://www.who.int>. Accessed on 6 March 2017.
- Goswami A. Analytical study of prevalent and traditional Prolacteal feeding practices and their relevance. *Indian J Preventive Social Med.* 2009;40(3):218-24.
- Sadagopal M. Her Healing Heritage: Study conducted in 7 states of India through LPSS & CHETNA, Ahmedabad; 1986.
- Punia S, Chhikara S, Sangawan S. Infant feeding and weaning practices in selected cultural zones of Haryana. *Ind J Nutr Dietet.* 1997;34:102-5.
- Edmond KM, Kirkwood BR, Amenga-Etego S, Owusu-Agyei S, Hurt LS. Effect of early infant feeding practices on infection specific neonatal mortality: An investigation of the causal links with observational data from rural Ghana. *Am J Clin Nutr.* 2007;86:1126-31.
- Shankar K, Muthukumar S, Sadhasivam M. Pre lacteal feeding practice among rural mothers in Tamilnadu - A questionnaire based study. *Int J Biomed Adv Res.* 2015;6(6):484-7.
- Perez Escamilla R, Segura Millan S, Canahuati J, Allen H. Prolacteal feeds are negatively associated with breastfeeding outcomes in Honduras *J Nutr.* 1996;126:276-573.
- Madhu K, Chowdary S, Masthi R. Breast feeding practices and newborn care in rural areas: A descriptive cross sectional study. *Indian J Community Med.* 2009;34:24-36.
- Saaddeh R. Global overview of the WHO/UNICEF Baby- Friendly Hospital Initiative. *Int Child Health* 1996;7:31-33.
- Chakraborty SN, Roy SK, Rahaman A, Ghose G. A community based study on pattern of breast feeding of under 6 months aged children in slums of an Eastern Industrial City of India. *IOSR Journal of Dental and Sciences (IOSR-JDMS).* 2015;14(6):61-4.
- Obulareddy AK, Narareddy RR. Study on breast feeding practices among urban and rural women in Kakinada. *Int J Res Health Sci.* 2015;3(1):66-70.
- Wadde SK, Vedapathak VL, Yadav VB. Breast feeding practices in rural mothers of Maharashtra. *Int J Recent Trends Sci Tech.* 2011;1(3):115-9.
- Gupta P, Srivastava VK, Kumar V, Srivastava JP. Pre-lacteal feeding practices among newborn in urban slums of Lucknow city, UP, India. *Open J Prevent Med.* 2012;2:510-2.
- Khanal V, Adhikari M, Sauer K, Zhao Y. Factors associated with the introduction of pre lacteal feeds in Nepal: findings from the Nepal Demographic and Health Survey 2011. *Int Breastfeed J.* 2013;8-9.
- Leggesse M, Demena M, Mesfin F, Haile D. Prolacteal feeding practices and associated factors among mothers of children aged less than 24 months in Raya Kobo district, North Eastern Ethiopia: a cross sectional study. *Int Breastfeed J.* 2014;9:189.
- Roy MP, Mohan U, Singh SK, Singh VK, Srivastava AK. Determinants of pre lacteal feeding in Rural Northern India. *Int J Prev Med.* 2014;5(5):658-63.
- Raval D, Jankar DV, Singh MP. A study of breast feeding practices among infants living in slums of Bhavnagar city, Gujarat, India. 2011;2(2):78-83.
- Giridhar L, Lakshmi G. Practices regarding colostrums and pre-lacteals among gadaba and kondadora tribes of Vizianagaram district. *IOSR J Pharm.* 2012; 2(5):8-12.
- Yadavannar MC, Patil SS. Socio cultural factors affecting breast feeding practices and decisions in rural women. *International Journal of Plant, Animal Environ Sci.* 2011; 1(2):46-50.
- Goyle A, Jain P, Vyas S, Saraf H, Shekhawat N. Colostrum and prolacteal feeding practices followed by families of pavement and roadside squatter settlements. *Indian J Prev Soc Med.* 2004;35(1):58-62.

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