

## Breast Feeding Practices among Rural Mothers: A Community Based Cross Sectional Study

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### Abstract

**Background and Objective:** Exclusive breast feeding practice ranks first among the most effective interventions to improve child health. Present study was undertaken to study breast feeding practices among rural mothers and the factors influencing these practices.

**Methodology:** This one year community based cross-sectional study was done at villages namely Vantamuri, Kakati (A and B), Honaga and Bhutramanahatti, which are the field practice area of department of Community Medicine, J. N. M. C., Belgaum. By random sampling 380 rural mothers having one year old child were selected. Information on socio-demographic variables, breast feeding practices was recorded.

**Results:** In the present study majority of the mothers (64.21%) were between 20 to 24 years of age and were educated till high school (46.32%). A Majority 57.11% of them had given pre-lacteal feeds; the most common being sugar water. As many as 25.79% mothers discarded the colostrum. Initiation of breast feeding after delivery was delayed by 33.68% of the mothers. Demand feeding was not practiced by 32.11% mothers. Occupation, place of delivery and receiving information about benefits of breast feeding had a significant association with the practice of giving pre-lacteal feeds and discarding colostrum.

**Conclusions:** Present study revealed that various inappropriate breast feeding practices are prevalent in rural areas. Elder's advice played an important role in shaping the breast feeding practices.

**Key Words:** Breast feeding practices; Pre-lacteal feeds; Colostrum.

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### Introduction

Nation marches on the tiny feet of the infants nurtured by the mothers. Infants, that is children in the age group of 0 – 1 year constitute 2.92% of the total population in India.[1] Health of these infants is quiet fragile with increased vulnerability to infections and other diseases. Hence, the major responsibility of a mother is to maintain and improve her child's health.

Appropriate breast feeding practice ranks first among the most effective interventions to improve child health. A great asset in India is that an average Indian mother although poor in nutritional status, has a remarkable ability to breast feed her infant for prolonged periods. However, some inappropriate breast feeding practices are carried out in rural India. Appropriate breast feeding practice means early initiation of breast feeding, no pre-lacteal feeds, feeding colostrum, giving only breast milk till 6 months of age. These practices depend on the mother's education, her socio-economic status, her access to information regarding infant feeding, feeding taboos and so on. Rural mothers are generally not well educated; do not have better socio-economic status and difficulty in accessing information regarding breast

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feeding. Hence, this study was taken up to understand the infant feeding practices and the factors influencing these practices in the rural area.

### Materials and Methods

The study area was the field practice area of Primary Health Centre, Vantamuri. There were 17 villages under Primary Health Centre, Vantamuri. Among these, by using simple random sample method, 5 villages namely Vantamuri, Kakati (A and B), Honaga and Bhutramanahatti were chosen. This community based cross sectional study was conducted for a study period of one year from January to December 2011.

The prevalence of exclusive breast feeding in rural area was 37.00%. [2] Absolute error of 5.00% was considered and by using the formula  $n = 4pq/d^2$  sample size was worked out as 380. Mothers in the above mentioned study areas having child aged one year were included in this study.

Information regarding the births between January to December 2010 were collected in January 2011 from the birth registers of the sub centers of the above mentioned villages. There were 679 mothers and 380 mothers were selected using random number table. They were interviewed in the month in which their infants completed one year.

The present study was approved by J. N. M. C. Institutional Ethics Committee on Human subjects' Research.

Residential addresses of these mothers were collected from female health worker of the sub-centers. Mothers were interviewed using a pre-designed, pre-tested questionnaire regarding socio-demographic factors and breast feeding practices. If the mothers were not present at the time of visit, they were revisited for a maximum of three times. Despite three visits if they were unavailable then next number in the random number table was chosen.

Analysis was done using rates, means and Chi square test using SPSS version 18.0

software.

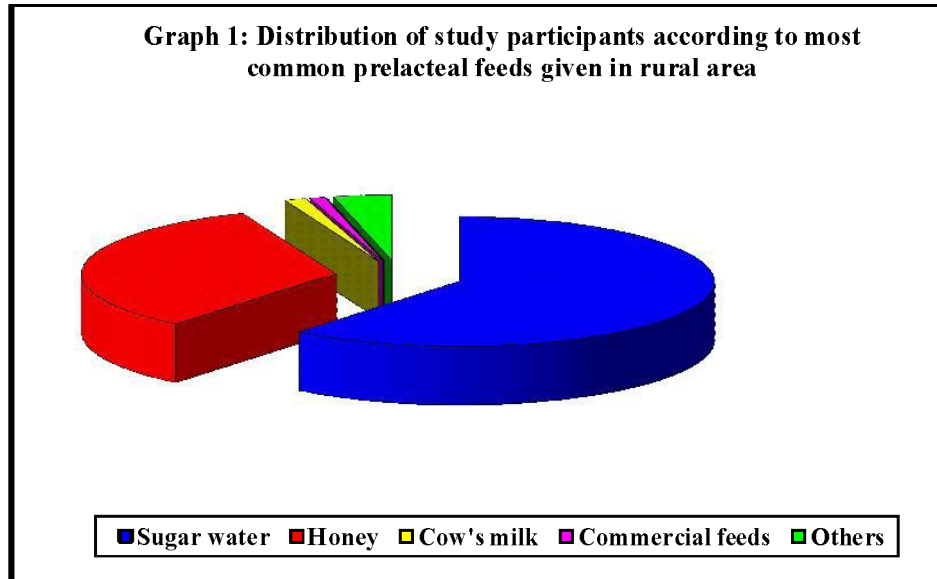
### Results

In the present study, a majority of 244 (64.21%) mothers were between 20 to 24 years of age. The mean age among the study population was  $23.20 \pm 2.64$  years with a range of 18 to 32 years. As many as 322 (84.74%) mothers were Hindus, 56 (14.74%) were Muslims and 2 (0.56%) mothers were Christians. A majority of 336 (88.42%) mothers were housewives. Mothers belonging to socio-economic class IV were as many as 178 (46.84%). Out the total 380 mothers, 236 (62.11%) belonged to nuclear family followed by 110 (28.95%) to joint family. As many as 32 (8.42%) mothers had delivered at home and the remaining 348 (91.58%) had delivered in a hospital. Of these 348 mothers who had delivered at a hospital, only 294 (84.48%) mothers were told about the benefits of breast feeding in the hospital.

Out of the 380 mothers, as many as 217

**Table 1: Distribution of study participants according to socio-demographic variables (n = 380)**

Socio-demographic variables	No.	%
<b>Age (years)</b>		
<19	20	5.26
20- 24	244	64.21
= 25	116	30.53
<b>Religion</b>		
Hindu	322	84.74
Muslim	56	14.74
Christian	2	0.52
<b>Literacy status</b>		
Illiterate	84	22.11
Literate	296	77.89
<b>Occupational status</b>		
House wife	336	88.42
Working	44	11.58
<b>Socio-economic status</b>		
I	6	1.58
II	22	5.79
III	108	28.42
IV	178	46.84
V	66	17.37
<b>Type of family</b>		
Nuclear	236	62.11
Joint	110	28.95
Three generation family	34	8.94



(57.11%) had given pre-lacteal feeds to their infant. Most common pre-lacteal food given was sugar water by as many as 132 (60.82%) mothers followed by honey (33.18%).

As many as 98 (25.79%) mothers discarded the colostrum. Most of the mothers had discarded the colostrum as per the elders' advice.

Initiation of breast feeding was delayed beyond four hours by 128 (33.68%) mothers.

Place of delivery and receiving information about benefits of breast feeding had significant association with the practice of giving pre-

**Table 2: Distribution of the mothers who had discarded the colostrum according to the reasons for doing so**

Reasons for discarding colostrum	No	%
Baby in NICU	22	22.45
Elder's advice	59	60.20
Physical inability in the mother	2	2.05
No secretion	9	9.18
Bad for baby's health	6	6.12
<b>Total</b>	<b>98</b>	<b>100.00</b>

**Table 3: Distribution of the mothers who had delayed the initiation of breast feeding according to the reasons for doing so**

Reasons for delayed initiation of breast feeding.	No	%
Mother's physical inability	7	5.47
Baby in NICU	25	19.53
No secretion	31	24.22
Elder's advice	59	46.09
Colostrum bad for baby's health	6	4.69
<b>Total</b>	<b>128</b>	<b>100.00</b>

lacteal feeds. ( $p < 0.05$ )

Practice of discarding colostrum was significantly associated with occupational status of the mother and also with receiving information about benefits of breast feeding. ( $p < 0.05$ )

## Discussion

As many as 57.11% mothers had given pre-lacteal feeds. Mothers gave pre-lacteal feeds mostly due to prevailing tradition of doing so in the entire study area. Most common pre-lacteal food given was sugar water (60.82%) followed by honey (33.18%).

In a study done by Qiu *et al* in a rural area, practice of giving pre-lacteal feeds was lower than the present study with 39.00% mothers giving pre-lacteal feeds.[3] Another study in rural areas of Dehradun by Semwal *et al* revealed that practice of giving pre-lacteal feeds

**Table 4: Association of place of delivery and receiving information about benefits of breast feeding on practice of giving pre-lacteal feeds**

Place of delivery	Pre-lacteal foods given					
	No	%	Yes	%	Total	
Home	6	18.75	26	81.25	32	$\chi^2=8.316,$ $p=0.004$
Hospital	157	45.11	191	54.89	348	
<b>Total</b>	<b>163</b>		<b>217</b>		<b>380</b>	
Received information about benefits of breast feeding						
Yes	147	50.00	147	50.00	294	$\chi^2=25.053,$ $p < 0.001$
No	10	18.51	44	81.49	54	
<b>Total</b>	<b>157</b>		<b>191</b>		<b>348</b>	

**Table 5: Association of occupational status and receiving information about benefits of breast feeding on practice of discarding colostrum**

Occupational status	Colostrum					
	Discarded	%	Not discarded	%	Total	
Housewife	86	25.59	250	74.41	336	$\chi^2=25.053,$ $p < 0.001$
Working	12	27.27	32	72.73	44	
<b>Total</b>	<b>98</b>		<b>282</b>		<b>380</b>	
Received information about benefits of breast feeding						
Yes	62	21.08	232	78.92	294	$\chi^2=18.626,$ $p < 0.001$
No	26	48.14	28	51.86	54	
<b>Total</b>	<b>88</b>		<b>260</b>		<b>348</b>	

were as high as 74.00% of mothers in the form of honey and sugar water.[4] Fazilli *et al* in a study at rural areas of Srinagar, observed that 61.17% urban and 75.00% rural mothers gave pre-lacteal feeds.[5]

As many as 25.79% mothers discarded the colostrum. The commonest reason for not giving colostrum as per the elders advice was observed in 60.20% mothers.

A study was done by Shirima *et al* in Morogoro, Tanzania and it showed that practice of discarding colostrum by mothers was 43.00% in rural areas.[6] In a study carried out by Yadav *et al* in Bihar it was seen that 66.40% rural mothers discarded colostrum.[7] Most common reason for doing so was elder's advice (37.20% rural area). In the villages of central Karnataka a study was carried out by Banapurmath *et al* which showed that practice of discarding colostrum was done by 28.60% of mothers.[8]

Initiation of breast feeding was delayed beyond 4 hours by 33.68% mothers. The most common reason quoted by the mothers for delayed initiation of breast feeding after delivery was as per the elders who advised not to initiate breast feeding early (46.09%).

A study was done by Shirima *et al* in Morogoro, Tanzania and early initiation of breast feeding within one hour was observed by 52.00% rural mothers.[6] In the villages of central Karnataka a study was carried out by Banapurmath *et al* and it showed that only 6.20% mothers initiated breast feeding within 4 hours of delivery.[8]

Present study has a limitation that only mothers having children aged 1 year were included in the study in order to minimize the recall bias regarding breast feeding practices and hence, it was not possible to know the proportion of mothers who continued breast feeding till recommended 2 years of age.

## Conclusion

Present study revealed that various inappropriate breast feeding practices are prevalent in the rural areas. Occupational status, place of delivery and receiving information in the hospitals about benefits of breast feeding influenced the breast feeding practices. Elders' advice played an important role in shaping the

breast feeding practices. Hence, strategies to encourage 100% institutional deliveries have to be implemented and after delivery every mother should be told about the benefits of breast feeding in the hospital without fail. IEC campaigns (information, education, and communication) should not only be targeted at the mothers but also at the elders in the family and community.

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