

FACTORS ASSOCIATED WITH KNOWLEDGE LEVEL AND FEEDING PRACTICES OF COLOSTRUM

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ABSTRACT

Feeding colostrum can prevent 55 per cent deaths due to diarrhoea and pneumonia. The present study is based on the knowledge and feeding practices of colostrum of primiparous mothers. 273 rural and 195 urban mothers of Varanasi District who came to hospital for follow up of their children having full termed normal delivery were randomly selected. The study reveals that knowledge regarding the importance of colostrum is diffused except 10.62 and 7.69 per cent in rural and urban mothers respectively. Administration of pre lacteal feed is the common practice. The feeding of colostrum is inversely proportional to joint family, low income, low status, lack of education etc. Emphasis should be made by the policy makers and planners in creating a specialized network to organize campaign for feeding colostrum, start breast feeding within an hour and exclusive breast-feeding up to 4 months along with protection, promotion and breast upkeep during antenatal period for better future of tomorrow.

Keywords: Colostrums, Pre Lacteal Feeds.

INTRODUCTION

The first milk colostrum is particularly of great importance regarding nutrition and health point of view due to its high quality proteins, fat-soluble vitamins and anti-infective properties for the infants. It is the infants first immunization (TOI, 1993, WHO, 1989, Bardwani *et al.* 1991) as it contains more Immunoglobulin (Ig A) than mature milk (Jelliffe and Jelliffe, 1978)

Feeding of colostrum to infants does not find any specific place in the earlier literature. In many parts of India, colostrums is routinely discarded and lactation is not initiated until the 3rd day and tradition of giving pre lacteal feeds before breast feeding is prevalent (Kaur. *et al.* 1990). Inclusion of these foods are tied up mostly with traditional beliefs of clearing the digestive tract and stimulating the suckling reflex in new born (Crazy and Resnik, 1984). The commonest reason for not giving colostrum by 63.6 per cent of the women was the religious belief that dropping milk on the mother earth would ensure a continuous flow of milk; otherwise breast milk would dry up. Other reasons quoted were - very thick (12.8), unclean (11.8) and its removal would make suckling easy for the baby (11.8). (Bhardwani *et al.* 1991). A knowledge regarding colostrums is essential for its practice in day-to-day life of the rural and urban people. Knowledge and practice is affected by cultural, traditional, religious, personal and socio-economic factors of the individual. The do's and don'ts of feeding colostrums is inherited and acquired by the nature of family, level of education, income, occupation, surroundings etc. The present study was conducted with

the objective of studying the relationship between the feeding practices regarding colostrum among rural and urban women.

METHODOLOGY

The study was hospital based and those mothers who came to S.S.hospital B.H.U., Varanasi for follow up of their infant having 1st termed normal delivery were selected randomly during the survey. Total 273 rural and 195 urban mothers were interviewed. Since the study was related to feeding practices of colostrum, therefore recall method and pre tested questionnaire cum interview method were followed. ND test were done to see the level of significance by using SPSS package.

RESULTS AND DISCUSSION

The study reveals that almost all the mothers are very much enthusiastic to breast-feed their children and fully aware of the usefulness of the feed of colostrum. The confusion and misconception about the feed of colostrum is over and most mothers are aware of its importance (Chotia and Pant; 1990, Vankatchalum 1983).

Table 1. Knowledgeability about Colostrums

Response of mothers	Rural		Urban		N.D.Test
	No.	Percent	No.	Percent	
Colostrum feed is Vital for newborn	232	84.98	177	90.77	1.88 NS
Harmful for new Born	29	10.62	15	7.69	1.07 NS
No knowledge but Fed the colostrum	12	4.40	03	1.54	1.73 NS

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It is clear from table 1 that only 10.62 rural and 7.69 per cent urban mothers reported that it is harmful for new born. The difference between the knowledgeability of feeding colostrum between rural and urban is non significant. Jelliffe (1968) emphasized on the basis of their study that milk stored for nine months is poisonous. A study conducted by NIHFV (1983) in 7 district of MP reported that only 51.5 per cent colostrums is important; other reasons for not feeding the baby with colostrum were: dirty (25.9 %), harmful (23 %) baby will become ill (13 %), causes pain in abdomen (3.4 %), too thick (2.0%) and stagnant (1.4 %). Almost a third of the respondent did not give any reason for discarding it.

It can be concluded that the feeding of colostrum varies from one place to other, one state to other, by reviewing the literatures. It was found that in most cases, the colostrum was not released within 6 hrs except 8.79 in rural and 22.05 per cent in urban. This is long period for new born to live without additional feed as shown in the table 2. Delayed initiation of breast feeding was usually seen due to traditional belief that just after fever only, milk secretion will start. That's why maximum mothers 52.38 per cent rural and 59.49 per cent urban mothers, fed colostrum between 24 to 48 hrs and within 24 hrs respectively. The difference between the rural and urban values is significant except the feeding of colostrums after 48 hrs. This is also supported by Mathur *et al.* (1990). Kalra *et al.* 1982 in his study found that there is no milk secretion soon after delivery. Delay in milk secretion was more among rural mothers as compared to urban mothers as shown in table 2. It is clear that no respondent breast-fed the child immediately after birth. Breast feeding soon after delivery, is considered very important for early release of milk and to enhance breast-feeding and curtail the pre lacteal feeding before the onset of breast milk.

Table 2. Time of Feeding Colostrum after Birth

Time of feeding	Rural		Urban		N.D. Value
	No.	Percent	No.	Percent	
Within 6 hrs of delivery	24	8.79	43	22.05	4.33**
Within 24 hrs	86	31.50	116	59.49	5.4**
24 to 48	143	52.38	34	17.44	7.6**
Above 48 hrs	20	7.33	06	3.08	1.8

** The difference is significant at $P < 0.01$

Devadas *et al.* (1999) reported that highly educated mothers from high socio-economic status commence breast feeding within an hour of delivery. Time of initiation is directly proportional to status and education. In the present study no body tried feeding within an hour of delivery. A study of mothers of maternity center of Coimbatore depicts that 95 per cent of the middle income

group and 80 per cent of the high income group started feeding colostrum to their new born soon after delivery while 35 and 24 per cent from economically weaker and low income group respectively advocated colostrum after 12 to 18 hrs. Mothers from economically weaker section (65 %), low-income group (76 %), middle-income group (5 %), and high-income group (20 %) discarded colostrums. The reasons reported were harmful, social custom or tradition of the locality and elder's advice (Devadas *et al.* 1999)

Delay in milk initiation is the real cause to introduce pre lacteal feeds. The mothers coming from all regions give this feed (Mathur *et al.* 1990). The pre lacteal feed becomes essential because the child cannot be put to breast feeding immediately after birth (Lozoff, *et al.* 1977). WH&UNICEF, 1979). TOI, 1993 reported that, no water or pre lacteal feed is required. Colostrum is the best and adequate food during this period.

In the present study, majority of the respondent gave different types of pre lacteal feeds as shown in table 3 which is also supported by many workers (Kalra *et al.* 1982, Khan, *et al.* 1985, Mathur *et al.* 1987, Singhania *et al.* 1990). Devadas *et al.* (1999) in her study reported that many families in South as cleansing agents give these pre lacteal feeds. Dasgupta *et al.* (1997) reported on the basis of study in Calcutta that routine administration of pre lacteal feeds interfere not only with the mother's confidence, suckling stimulation and prolactin, but also often these feeds are the source of infections to the newborn. Narayan (1980) also reported that pre lacteal feeds should be discouraged and due care should be exercised to avoid other complications.

Table 3. Details of Pre-lacteal Feeds

Types of Pre lacteal Feeds	Rural		Urban		N.D. Value
	No.	Percent	No.	Percent	
Water	33	12.09	31	15.09	1.33
Honey Water	02	0.54	35	17.95	6.80**
Glucose Water	-	-	16	8.20	-
Diluted cow's milk	156	57.14	80	41.03	3.48**
Goat's milk	72	26.37	-	-	7.14**
Wet Nurse	08	2.93	17	8.72	2.74**
Tinned milk	02	0.54	16	8.20	4.14**

** Significant at $P < 0.01$

Table 3 shows that maximum number of mothers in Rural and Urban area had given diluted cow's milk 57.14 and 41.03 per cent respectively followed by goat's milk (26.37 per cent) in rural area and honey water (17.95) in urban area. The differences were highly significant in almost all pre lacteal feeds except water and glucose water. Early feeding and colostrums feeding have to be

Table 4. Effect of Dependent Variable on Colostrums Feeding Practices

Factors	Rural		Urban	
	Yes	No	Yes	No
Types of family				
Nuclear	152/165 (92.12)	13/165 (7.88)	137/145 (94.48)	08/145 (5.52)
Joint	80/108 (74.07)	28/108 (25.93)	38/50 (76.0)	12/50 (24.0)
Income Group				
LIG	121/136 (88.97)	15/136 (11.03)	19/27 (70.37)	08/27 (29.63)
MIG	92/104 (88.46)	12/104 (11.54)	75/106 (70.75)	31/106 (29.25)
HIG	31/33 (93.94)	02/33 (6.06)	56/62 (90.32)	06/66 (9.68)
Literacy Group				
Up to 5th	34/44 (77.27)	10/44 (22.73)	04/05 (80.0)	01/05 (20.0)
Up to 12th	180/200 (90.00)	20/200 (10.00)	42/45 (93.34)	03/45 (6.67)
Graduate & above	25/29 (86.21)	04/29 (13.79)	141/145 (97.24)	04/145 (2.76)
Occupation				
Working	63/65 (96.92)	02/65 (3.08)	92/93 (98.93)	01/93 (1.08)
Non Working	198/208 (95.19)	10/208 (4.81)	96/102 (94.14)	06/102 (2.76)

Values in parenthesis indicates percentage

promoted amongst the public. Administration of pre lacteal feeds is the main cause of Infant mortality rate.

Breast-feeding should be initiated within hour after delivery. Kushwaha (TOI, 2004) said that even in traditional U.P., only 6.5 per cent mothers breast-feed infants in first hour of birth.

It is clear from table 4 that maximum number of respondents from joint families did not fed the colostrums that too is only 25.93 and 24.00 per cent in rural and urban areas respectively. Followed by literacy level and income groups. Mothers' literate up to 5th standard (22.73 and 20.00) lower income (11.03 and 29.63) and middle-income groups (11.54 and 29.25) discarded colostrum from rural and urban areas respectively.

CONCLUSION

The importance of feeding colostrums lies both in its positive impact on the child's health and survival. Breast-feeding should be given just after birth, which will stimulate the initiation of milk and bond between mother and child. Early feeding will restrict the pre lacteal feeds which is the major cause to protect against potential killers like diarrhoea, dysentery etc. In the rural as well as urban areas every effort should be made to give knowledge regarding importance, protection, and promotion of breast-feeding and breast upkeep during antenatal period. For this Health Dept, Child and Family Welfare, Social Welfare, KVKs, Home Scientists and Workers of NGOs should implements program for promoting breast-feeding services into the rural masses.

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