

## BREAST-FEEDING PRACTICES AMONG MOTHERS AND ASSOCIATED MALNUTRITION IN CHILDREN OF RURAL AREAS OF DEHRADUN

Jayanti Semwal\*, Surekha Kishore\*\*, Sonali Kar\*\*\*, Sudhir Gupta\*\*\*\*

Associate Professor\*, Professor & Head\*\*, PG Student\*\*\*, Assistant Professor\*\*\*\*

Department of Community Medicine, HIMS, Jolly Grant, Swami Rama Nagar, Dehradun

### ABSTRACT:

*Breast-feeding is the nature's gift for the child yet ironically it is one of the most neglected and least properly practiced among the mothers. The present study was carried out among mothers with children 1-3 years of age in the field practice areas of our Institute. Out of the 228 children 73.6% had been given prelacteal feeds, in case of 77% of the children breast-feeding had been initiated in more than one hour, only 28.9% were exclusively breast fed & supplementary feeding was started in 6 months for 39%. 43.8% were undernourished for age of which 58% were having Grade 1 malnutrition. Thus the present study reaffirms the contention that though rural mothers breast-feed their children, they abide by cultural practices more than the advice of the health workers or doctors and this study supports that these improper feeding practices do affect the child's health adversely.*

**Key words:** Breast-feeding practices, prelacteal feeds, and supplementary nutrition, malnourished for age.

### Introduction:

Breast-feeding is the fundamental right of the child. The anti-infective qualities, freedom from the risk of contamination, psychological benefits for the mother and the child and its nutritional superiority over animal milk makes breast milk definitely the feed of choice, more so in a developing country like ours<sup>1</sup>.

But unfortunately this naturally gifted practice has declined worldwide in the recent years, which can be largely attributed to rapid urbanization, marketing of infant milk formulae and maternal employment - to name a few<sup>2</sup>.

WHO and other international agencies recommended that mothers should breast feed their children exclusively for 6 months from birth & continue it along with appropriate supplements up to the second year of age<sup>3,4</sup>. Initial 5-6 months lay the foundations of the child's health.

The present study was undertaken to explore the breast-feeding practices amongst the mothers in early six months to one year and its association with malnutrition regardless of the present calorie intake of children.

### Materials & Method:

The study was conducted in the field practice areas of the Department of community medicine, Himalayan Institute of Medical Sciences from March 2003 - Sept 2003. It was a cross-sectional study where 228 children between 1-3 yrs of age were identified by a house-to-house survey done by a team of interns, PGs & supervised by faculty members. The interns interviewed the mothers of the children by using a prestructured questionnaire to obtain information regarding the sex of the child, birth order, mother's practices of breast-feeding irrespective of their level of education. To assess the malnutrition, present calorie intake of children were not taken into consideration. Checking for the BCG scar & asking about the polio drops & other injections, in case the mother did not

possess the immunization card, determined the Immunization status of child. Assessment of malnutrition was done by plotting weight (taken by a weighing machine) against age (in months) on ICDS growth charts. Statistical test (chi square test) was carried out to find out any association between the variables.

### Findings:

Out of the 228 children 128 i.e. 56.14% were males & 100 i.e. 43.86% were females.

Prelacteal feeds were given to nearly 74% of the children in the form of honey, sugar water and ghutti etc. On statistical analysis, this practice showed a distinct relation with the age of the mother ( $p < 0.005$ ). In case of children with mothers less than 20 years of age, 78.26% were given prelacteal feeds, while this was least (64%) for children with mothers more than 30 years of age (Table I). In our study all the mothers aged less than 20 years had only one child. They as per their age were more susceptible to the influence of peer groups as well as the elderly women of their house regarding feeding practices and childcare. The mothers aged more than 30 yrs had normally more than 2 children. They were more sensitized to the various aspects of breast-feeding, either by their personal experiences or by the constant inputs from the field workers & the health education being imparted at our center. This very much explains the difference in the prelacteal feeding practice in both the age groups as found in our study.

Also the practice of starting supplementary feeding at the age of 6 months was found to be statistically significant as against age of the mother. It was maximum in the mothers >30 years of age (60%), followed by those in age group 20-30 years (34.85%), ( $P < 0.01$ ,  $df=2$ ). Malnutrition too was reported high in children of mothers of these age groups being 60% and 40.91% respectively. This could be due to low calorogenic supplement feeds as per cultural rituals (in form of



very thin kichidi or dal ka pani or diluted cow's milk and increasing parity in these age groups. Overall 60.5% of the children in the study area were started supplementary feeding after 6 months of age (Table I).

Only 28.95% were exclusively breast fed till the age of 6 months and there was no significant relation between the age of the mother & the practice of exclusive breast-feeding. This practice was highest (34.78% of children) in case of mothers less than 20 years of age. The mothers in this age group were currently married and were having only one child, hence capable of giving more time to feed their child.

100 children (43.86%) were malnourished for age out of which 55% were males & 45% were females, but there was no significant relation between sex of the child and the prevalence of malnutrition. Maximum prevalence of 60% was seen in children with mothers above 30 yrs of age (51.9% males, 48.1% females) followed by 41.91% in 20-30 years of age and minimum being 34.78% among children of mothers less than 20 yrs of age. A significant association was seen between the maternal age and the prevalence of malnutrition. ( $P < 0.05$ ,  $df = 2$ ). Although as stated earlier practice of prelacteal feeding was less among the mothers of this age group but malnutrition in this age group was reported high. This might be due to increasing parity in this age and low nutritional supplement of these children. Moreover in a hilly state like U.A. where alcoholism is very predominant among the males & agriculture being the main occupation, the women of this age group are the prime bread earners and they are out to the fields very early in the morning & in the latter half of the day for daily livelihood & the children are left indoor at the mercy of the elders in the house who seldom take such interest in their feeding as the mother could. 58% of the children had Grade I malnutrition while minimum were having Grade IV malnutrition. This can be prevented by providing rich diet & improving personal hygiene.

Our health center teams actively work along with the anganwadi workers and assure that the lactating mothers and the children with various grades of malnutrition get the enriched flour, sattu (i.e. 160 grams/d) etc. and guides the workers to monitor the weight of these children on a monthly basis. Free OPD services for minor ailments are being offered though our center and specialist clinics too are organized on a fortnight basis.

Table III compares the effect of various feeding practices & immunization on the child's growth in our study. Practice of giving prelacteal feeds shows no association with the malnutrition of the child ( $df = 4$ ,  $p < 0.07$ ) whereas the timing of initiation of breast-feeding & exclusive breast-feeding was significantly related to the child's health ( $df = 8$ ,  $p < 0.003$  &  $df = 4$ ,  $p < 0.002$  respectively). The supplementary nutrition shows mild relation with the prevalence of malnutrition. The place of delivery & the immunization status however showed no significant association.

Thus our study reinforces the need of promotion of proper breast-feeding practices amongst the mothers, which ensure a healthy childhood for the baby.

#### Discussion :

We have concluded that incorrect breast-feeding practice during first six months of age is also a contributing factor for malnutrition in the children aged 1-3 yrs. The study revealed that the incorrect breast feeding practices within 6 months of age were responsible for the present malnutrition that is carried forward in the coming years in terms of inadequate supplementary feeding & a high birth order.

In our study exclusive breast-feeding was reported to be 28.95% that is much lower than that reported by Banappurmath et al who reported it to be 60%, and this is seen to be affecting the health of the child in our study<sup>7</sup>. Prelacteals were mainly plain water, jaggery water, honey, ghutti etc advised as per cultural practices by elders & relatives. These interfere with the mother's confidence, the suckling stimulation, & prolactin production besides introducing infection. In our study, practice of prelacteal feeding was significantly high i.e. 73.68% as against 36.1% reported by R.N. Kulkarni et al in a study based at Mumbai<sup>8</sup>. 60.5% of the children were given supplementary feeding after 6 months which was much higher than that observed by Gajanan et al who reported it to be 17.83% in his study<sup>9</sup>. According to the report of NFHS-2, 47% of Indian children fewer than 3 years of age suffer from undernutrition and our study also reported 44% to be undernourished for age that is comparable to NFHS-2 data.

Thus, we can see that breast-feeding practices in the rural areas of Dehradun is chiefly governed by the advice of the elders or the prevailing age-old practices. Hence, it calls upon to reinforce efforts by the service providers, the ground level health workers including us to insist upon the need of breast-feeding practices including exclusive breast-feeding and the need to start appropriate and sufficient supplementary feeding by 6 months, among mothers and adolescent girls to ensure the health of our future generation<sup>10</sup>.

#### Conclusion :

In this study we have attempted to reaffirm that health status of the child is essentially dependent on proper breast-feeding practices i.e. discouraging prelacteal feeds, exclusive breast feeding, starting of adequate supplementary feeds by 6 months which in our country is predominated by the existing cultural / advice of elders. In spite of much effort made in this direction (field workers imparting health education & during our specialist gynaec camps the doctors insisting on the breast-feeding practices) not much headway has been made in this direction & in our study the malnutrition identified in the age group 1-3 yrs & the positive association seen with the feeding practices called more concerted efforts to create awareness & attitude among the mothers.



Table 1  
BREAST-FEEDING PRACTISES AMONG MOTHERS

Age group of mothers (in yrs)	Total No. of Children (1-3 yrs)	Sex		Prelacteal feeds not given	Initiation of breast feeding given in <1hr	Exclusive breast feeding given	Supplements started at 6 months
		Male	Female				
<20	46	26 (56.52%)	20 (43.48%)	10 (21.74%)	8 (17.39%)	16 (34.78%)	14 (30.43%)
20-30	132	72 (54.55%)	60 (45.45%)	32 (24.24%)	34 (25.76%)	38 (28.79%)	46 (34.85%)
>30	50	30 (60%)	20 (40%)	18 (36%)	10 (20%)	12 (24%)	30 (60%)
<b>Total</b>	<b>228</b>	<b>128(56.14%)</b>	<b>100(43.86%)</b>				

p<0.005

p<0.01

Table 2  
PREVALENCE OF DIFFERENT GRADES OF MALNUTRITION

Age group of mother (in yrs)	Total Children	Malnutrition +ve	Grade			
			I	II	III	IV
<20	46	16 (34.78%)	8	6	2	-
20-30	132	54 (40.91%)	30	16	6	2
>30	50	30 (60%)	20	8	2	-
<b>Total</b>	<b>228</b>	<b>100 (43.86%)</b>	<b>58 (58%)</b>	<b>30 (30%)</b>	<b>10 (10%)</b>	<b>2 (2%)</b>

p<0.05

Table 3  
EFFECT OF IMPROPER FEEDING PRACTICES ON THE CHILD'S HEALTH

Parameters	Condition	Normal wt	Grades of malnutrition				Total
			GI	GII	GIII	GIV	
Prelacteal feeds	Not given	40	16	4	-	-	60
	Given	88	42	26	10	2	168 df=4,p<0.07
**Initiation of Breast Feedig	<1 hr	32	18	2	-	-	52
	1 hr-1 day	50	12	10	2	2	76
	> 1 day	46	28	18	8	-	100 df=8,p<0.003
**Exclusive breast feeding	Yes	50	12	4	-	-	66
	No	78	46	26	10	2	162 df=4,p<0.002
*Weaning	4-6 mths	60	20	10	-	-	90
	After 6 mths	68	38	20	10	2	138 df=4,p<0.019
<b>Total in wt category</b>		<b>128</b>	<b>58</b>	<b>30</b>	<b>10</b>	<b>2</b>	<b>228</b>



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★ *Start Early*  
 ★ *Drive Slowly*  
 ★ *Reach Safely*