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## RESEARCH ARTICLE

### Breast feeding practices and its associated factors in the first year of life: a study in part of north India.

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#### Abstract

**Objectives:** To study breast feeding practices during first year of life and its relation to maternal and infant characteristics. A Cross-sectional study was conducted among 210 mothers having children in the age group of 12 months and below using 30 clusters sampling technique.

**Results:** 95.7% infants in our study were ever breast fed. Prelacteal feed was given by 77.9% mothers and only 22.9% mothers had started directly with breast milk. Parity and gender was significantly associated however, maternal literacy was found to be insignificantly associated with type of first feed. No significant difference was noted between time of initiation of first breast feed, literacy status, parity and place of delivery. Gender of the child and type of delivery were found to be significantly associated. In our study, the practice of giving colostrum was very high (95%) and was discarded by only 5% of the mothers. 71.1% mothers were able to feed their infants on demand and only 6.5% mothers practiced schedule type of breast feeding. In our study only 12.4% infants were exclusively breast fed, 13.9% were predominantly breast fed and 73.6% were partially breast fed. Only 7.9% infants in the age of 3 to 5 months were exclusively breast fed. In our study, 57.2% mothers got information about breast feeding from their family members, 30.3% from the doctor and 6.4% from the paramedical staff.

**Conclusions:** Study recommends the need of team work of our peripheral health workers (ANM, ASHA, AWW) for continual sensitization of mothers regarding importance of breast milk over artificial feeds. Mothers have to be motivated for exclusively breast feeding their infants for six months.

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#### Introduction:

**CHILD-** man gifts himself with, is a delight for his parents, pride for his community and future of his nation. Child's health has been a quest and aspiration of all civilizations in all ages and man after striving for it has achieved great milestones due to years of effort, hard work and research. 1.3 million deaths in the world could be prevented each year if babies were exclusively breastfed for first six months, followed by appropriate complementary feeding in addition to breast feeding for at least the first year of their life (Clemens JD 1990)<sup>1</sup>. In 1988, the Indian Academy of pediatrics (IAP) as a part of its policy to promote breast feeding published very clear cut recommendations on breastfeeding. Recently India joined the world community in BFHI (Baby Friendly Hospital Initiative) a global effort with the hospitals to provide support during and after delivery to the mother, so that she has a joyful breast feeding experience. These hospitals are given recognition and are given plaque that they can put by their front entrance designating them as baby friendly (WHO, 1989)<sup>2</sup>.

Breast feeding is a universal phenomenon but the problem with breast feeding is that it starts too late, it is stopped too soon, and it is substituted with other infant foods. Due to the lack of knowledge, misconception in the community, misinformation by infant food manufacturers and lack of community/family support to women, this

phenomenon of breast feeding is far from optimal. Many studies have been conducted on breast feeding practices till date however rapid urbanization and industrialization has led to the changes in these practices as people tend to follow the footsteps of their counterparts in the west. This study aims to study the prevailing breast feeding practices among mothers.

### Material and methods:

Study was carried out in block Hazratbal, field practice area of Government Medical College Srinagar. Study population comprised of 210 mothers. Sampling was done using WHO "30 Cluster Sampling techniques" (WHO 1979)<sup>3</sup>. A total of 30 villages/wards were selected using the above technique. 7 eligible children were taken from each village/ward. Enquiry was made from the respondents regarding the child in the age range of 12 completed months and below. Information on prevailing breast feeding practices was obtained from a series of questions. All the relevant information from initiating breastfeeding, person giving advice on breast feeding, type of first feed, colostrum feeding, duration of exclusive and partial breast feeding was obtained. The process was continued till the desired number of children was obtained. All the data thus collected was compiled and tabulated in the form of contingency tables and analysis was done using appropriate statistical technique which included Chi-square test to find the variables that came significant.

**Result:** 95.7% infants in our study were ever breast fed however on analyzing type of first feed given to infants as per age of surveyed mothers it was observed that breast milk as first feed was given by 22.9% mothers and majority 36.8% of these mothers were in the age of 35 and above. Among feeds other than breast milk i.e. (Prelacteal feed) sugar was most common given by 26.2% mother's followed by honey which was given by 15.7% mothers. On analyzing type of first feed given to infants as per type of delivery 82.8% infants who had delivered by caesarean section were given prelacteal feed as compared to 72.6% infants who had delivered vaginally. Only 17.2% infants delivered by caesarean section were given breast milk as first feed as compared to 27.4% infants delivered vaginally. As per time of initiation of first breast feed 201 out of 210 mothers (95.7%) had initiated breast feeding. 64.2% mothers breast fed within 6 hours and majority of these mothers 89.5% of these mothers were in the age of 35yrs and above. 53.3% mothers who had delivered by caesarean section initiated breast feeding within 6 hrs as compared to 73% mothers who had delivered vaginally. Among 210 mothers who had initiated breast feeding colostrum was not given by 5% mothers whereas 95% had fed colostrum to their infants. 96.3% mother who had delivered vaginally fed their infants colostrum as compared to 93.3% mothers who had delivered by Caesarean section. On analyzing pattern of breast feeding among surveyed mothers as per their parity it was observed that 67.1% primigravida mothers had breast fed their infants on demand as compared to 73.3% multigravida mothers. 36% infants less than 3 months of age were exclusively breast fed. The percentage of infants exclusively breast fed dropped off sharply with only 7.9% infants exclusively breast fed in the age of 3-5 months. A small percentage of infants (3.9%) were exclusively breast fed in the age of 6-8 months. The proportion of infants partially breast fed increased from 46% in <3 months age group to 61.9% in 3-5 month age group.

### Discussion:

In the present study prelacteal feed was given by 77.9% mothers and only 22.9% mothers had started directly with breast milk. Study by **Kulkarni R.N et al (2004)**<sup>4</sup> on breast feeding practices in urban community of Navi Mumbai reported that only 36.1% mothers gave prelacteal feeds to their infants. Parity of mother was significantly associated as 86.3% primigravida mothers had given prelacteal feed to their infants as compared to 72.3% multigravida mothers. Studies by **Narayan et al (2005)**<sup>5</sup> revealed that primigravida status adversely affect the start of breast feeding. Our study also showed that hospital delivery (82.8%) and infants delivered by caesarean section had more dependence on prelacteal feeds. This is in agreement with previous study by **Rafael PE et al (1996)**<sup>6</sup> in which hospital deliveries and delivery by cesarean section were found to be significantly associated with exposure to milk based prelacteal food. No significant difference was noted between time of initiation of first breast feed, literacy status, parity and place of delivery. However gender of the child and type of delivery were found to be significantly associated. Similar to our findings **Yoku Net al(2008)**<sup>7</sup> found no significant difference with regards to maternal age, gender of infant and parity but type of delivery was found to be significantly associated. Colostrum is the first milk and first immunization a child receives from the mother, in our study the practice of giving colostrum was very high (95%) and was discarded by only 5% of the mothers. The reason for high colostrum feeding in the present study may be due to the fact that in most of the communities' breast feeding is delayed till the religious rituals are performed by the holy cleric; however such customs are not prevalent in Kashmir valley. In concordance to our findings **Kulkarni R.N et al (2004)**<sup>8</sup> reported 95.1% mothers feeding their infants with colostrums. This study was done in urban community where literacy was very high (86.8%), it was a reflection of their knowledge about the nutritional value of colostrums. **Dakshayani B et al (2005)**<sup>9</sup> studied breast feeding practices among tribal population

of Mysore District where 76% mothers had given colostrums to their infants. The reason for not feeding colostrums in 24% mothers was traditional belief as they considered it thick, cheesy, indigestible and not good for the baby. In the present study 71.1% mothers were able to feed their infants on demand and only 6.5% mothers practiced schedule type of breast feeding. Study done earlier by **Sharma M et al (2003)**<sup>10</sup> revealed that frequency of feeding milk on demand was very high 72% which is comparable to our study findings. 81.3% illiterate mothers fed their infant on demand as compared to 58.4% literate mothers. 72.1% mothers belonging to joint family fed their infants on demand as compared to 68.5% mothers belonging to nuclear family. This may be due to the fact that mothers belonging to nuclear families and those engaged in work outside their homes could not afford to breast feed their infants as often as others owing to greater demand on their time for additional engagements. In our study only 12.4% infants were exclusively breast fed, 13.9% were predominantly breast fed and 73.6% were partially breast fed. Only 7.9% infants in the age of 3 to 5 months were exclusively breast fed. A very high percentage of infants 46.0% upto the age of 3 months were partially breast fed. A study on infant feeding practices in rural area of Delhi by **Taneja D.K et al (2003)**<sup>11</sup> showed that 26.9% infants were exclusively breast feeding, 33% were predominantly breast fed. In 40.6% top milk was started before 4 months of age.

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**Table-1: Distribution of type of first feed given to infants as per mother's parity**

Parity	Type of first feed		
	Breast milk	Prelacteal feed	Total

<b>Primigravida</b>	10 (13.7)	63 (86.3)	73
<b>Multigravida</b>	38 (27.7)	99 (72.3)	137
<b>Total</b>	48 (22.8)	162 (77.1)	210

p=0.021 (Sig)

**Table-2: Type of first feed given to infants as per their place of delivery**

Place of delivery	Type of first feed		
	Breast milk	Prelacteal feed	Total
<b>Hospital</b>	16(17.2)	77(82.8)	93
<b>Home</b>	32(27.6)	84(72.4)	116
<b>Total</b>	48 (22.8)	161(76.6)	210

p=0.093 (NS)

**Table-3: Distribution of time of initiation of first breast feed as Per type of delivery  $\chi^2= 18.5$ , p=0.001 (Sig)**

Type of Delivery	Time of initiation of first breast feed (%)					Total
	< 6hrs	6-12hrs	12-18hrs	18-24hrs	≥24hrs	
<b>Caesaren</b>	48(53.3)	11(12.2)	16(17.8)	7(7.8)	8(8.9)	90
<b>Vaginal</b>	81(73.0)	14(12.6)	5(4.5)	10(9.0)	1(0.9)	111
<b>Total</b>	129(64.2)	25(12.4)	21(10.4)	17(8.5)	9(4.5)	201

**Table-4: Colostrum feeding among infants as per mother's literacy status**

Literacy Status	Colostrum feeding		
	Given (%)	Not Given (%)	Total
<b>Illiterate</b>	111 (99.1)	1 (0.9)	112
<b>Literate</b>	80 (89.8)	9 (10.1)	89
<b>Total</b>	191 (95.0)	10 (5.0)	201

 $\chi^2= 0.8$ , p=0.367 (NS)**Table-5: Pattern of breast feeding in infants as per type of family**

Type of Family	Pattern of breast feeding			
	Demand (%)	Schedule (%)	Both (%)	Total
<b>Joint</b>	106 (72.1)	5(3.4)	14(22.9)	70
<b>Nuclear</b>	37(68.5)	8(14.8)	29(22.1)	131
<b>Total</b>	143(71.14)	13(16.4)	45 (22.3)	201

$\chi^2=9.1, p=0.011$  (Sig)

**Table-6: Feeding status among infants as per their age distribution in (months)**

Current Feeding Status	Age of infants (completed months)				Total
	upto 3	3 to5	6 to 8	9 to 11	
<b>Exclusive Breastfeeding</b>	18(36.0)	5(7.9)	2(3.9)	0(0.0)	25(12.4)
<b>Partial Breast Feeding</b>	23(46.0)	39(61.9)	49(96.1)	37(100.)	148(73.6)
<b>Predominant Breast Fed</b>	9(18.0)	19(30.2)	0(0.0)	0(0.0)	28(13.9)
<b>Total</b>	50	69	53	28	201