



Infant Feeding Practices Among Rural Mothers

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Abstract

Two hundred rural mothers were assessed regarding various feeding practices applied to their infants. *Pre-lacteal* feeds were given routinely to majority of infants (89%). Only 8.5% babies were offered breastfeeding within three hours of birth. Breastfeeding within first 24, 48 and 72 hours was initiated by 37.5%, 27.5 and 16.5% mothers respectively. Top feeds were introduced before 4 weeks by 17% mothers. Weaning was initiated by 5.7% mothers at the end of 4 months. By the end of 10 months 75% mothers had started giving solid feeds to their children. Delayed initiation of breast feeding, use of pre-lacteal feeds, early introduction of top feeds and delayed initiation of weaning are prevalent among rural mothers.

Introduction

The right of child to be fed, nurtured and loved by the mother is the most ancient of all human rights recognised by all societies and cultures. Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants and has a unique biological and emotional influence on the health of both mother and child. The prevalence and duration of breast feeding have declined in many parts of world for a variety of social, economic and cultural reasons. Because of advent of modernization, adoption of new life styles, lack of family support and advertisement, the importance attached to this traditional practice has been noticeably reduced in many societies (1,2). Numerous advantages of breastfeeding over artificial milk have been documented. Promotion of breastfeeding is justified on firm scientific grounds. Several studies have shown a general decline in breastfeeding in urban areas (3). Rural studies on breastfeeding practices are however lacking, hence the present study was undertaken in the rural areas to assess

the infant feeding practices.

Methods

Two hundred mothers (75 primipara and 125 multipara) who had their children born after Dec. 1998 and who had come for immunization were randomly selected at Community Health Centre, Hiranagar, District Kathua. All mothers were interviewed as per the prestructured questionnaire which included antenatal care, type of family, educational status, socio-economic status, feeding practices, awareness of importance of breastfeeding, age of child at introduction of top feeds, reasons for initiation of topfeeds, types of feeds and weaning practices. Health education was imparted to each mother regarding proper breastfeeding and weaning.

Results

Majority of mothers i.e 156 (78%) were between 20-30 years of age with 17 mothers (8.5%) less than 20 years and 27 (13.5%) more than 30 years. Among the infants studied there were 112 (56%) males and 88 (44%)

females of which 179 (89.5%) were normal vaginal deliveries. Certain characteristics regarding initiation of breast feeds and age at introduction of top feeds are shown in Table I. One hundred and thirty two mothers (66%) received antenatal care. Prelacteal feeds such as honey, glucose water, plain water, rose water, jaggery water etc. were given routinely to majority of infants i.e. 178 (89%). Out of 200 infants, only 17 babies (8.5%) were offered breastfeeding within three hours of birth. Breast feeding within first 24, 48 and 72 hours was initiated by 75(37.5%), 55(27.5%) and 31(16.5%) mothers respectively. Seventeen (8.5%) infants did not receive breastfeeds at all. Top feeds were introduced before 4 weeks by 34 mothers (17%). Various reasons for starting top feeds and the method of feeding are given in Table II. Inadequate milk, relative's advice, health worker's advice, subsequent maternal pregnancy illness, joining work and infant illness were various reasons for starting top feed. In 9 mothers (4.5%) no reason could be elicited. Majority of mothers introduced

top feeds with bottle (64%). Six mothers (3%) were giving milk with cotton wati. Formula milk was used by 51 mothers (25.5%), while animal milk was used by 106 mothers (53%).

Weaning was initiated by 104 mothers at different ages as depicted in Table III. Out of 104 six mothers (5.7%) had started weaning at end of 4 months. By the end of 10 months, 78 mothers (75.%) had started giving solid feeds to their children. Eighteen mothers (17.4%) did not start weaning at all at the end of one year.

The observations in Table-I did not show any significant correlation with maternal education and family type in early initiation of breastfeeding. Time of initiation of breastfeeding was significant more among mothers who had not attended antenatal clinics, with higher socio-economic status and who had earlier sibs.

Introduction of top feeds before 4 weeks was significantly more in educated mothers, who had undergone lower segment caesarean section, with better socio-economic strata and with earlier sibs.

Table I
Feeding Pattern of Study Subjects

Characteristic	Total No.	Prelacteal feeds	Time of Initiation of BF after birth (in hours)					Introduction of top feeds (in weeks)				
			<3	24	24	72	> 1WK	Not given	<4	4-8	8-12	>12W
1. Antenatal Clinic												
Attended	132	96.6	7.5	31.0	30.3	58.2	3.7	9.1	19.7	44.7	32.6	3.0
Not Attended	68	73.5	10.0	50.0	22.0	10.3	---	7.4	11.8	39.7	14.1	4.4
2. Maternal Education												
Illiterate	77	93.5	6.5	40.2	28.6	11.7	---	13.0	13.0	40.8	39.0	1.2
Middle School	69	85.3	11.6	31.9	37.7	13.0	4.3	1.5	11.6	43.4	37.7	7.3
High School and above.	54	88.9	7.4	40.7	13.0	24.0	3.7	11.2	29.6	37.0	31.5	1.9
3. Family Type												
Joint	132	88.6	8.3	38.6	28.0	15.9	2.3	6.9	15.9	41.6	40.2	2.3
Nuclear	68	89.7	8.8	35.3	26.5	14.7	2.9	11.8	19.1	45.6	29.4	5.9
4. Mode of delivery												
Vaginal	179	81.7	9.5	40.2	27.4	14.0	1.1	7.8	16.2	44.1	36.9	2.8
LSCS	21	100.0	---	14.3	28.6	28.6	14.3	14.3	24.0	33.3	33.3	9.4
5. S. E. Status (Household income Rs./Month)												
<3000	90	82.2	7.9	34.4	31.1	14.4	3.3	8.9	10.0	26.6	56.7	6.7
3000 - 6000	67	97.0	6.0	41.8	25.4	14.9	1.5	10.4	17.9	53.7	28.4	---
>6000	43	90.7	13.9	37.2	23.2	18.6	2.3	4.8	30.2	60.5	7.0	2.3
6. Birth Order												
1st	75	98.6	2.7	30.6	28.0	16.0	4.0	18.7	8.0	48.0	37.3	6.7
2nd	64	79.7	9.4	42.2	28.1	17.2	---	3.1	14.0	42.2	40.7	3.1
3rd or more	61	86.9	14.7	41.0	26.2	13.1	3.3	1.7	31.1	37.8	31.1	---



Table II

Reasons for starting Top feeds and type of feeds

I. Reasons	No.	%
Inadequate milk	83	41.5
Relative's advice	32	16.0
Health worker's advice	25	12.5
Maternal illness	22	11.0
Subsequent Pregnancy	14	7.0
Joining work	6	3.0
Infant illness	9	4.5
No Reason	9	4.5
II. Type of feeds		
Bottle	128	64.0
Katori / Spoon	23	11.5
Cotton Wati (Swab)	6	3
III. Type of Milk		
Formula milk	51	25.5
Animal milk	106	53.0
Diluted	89	44.5
Undiluted	17	8.5

Table III

Age of weaning and Type of feeds

I. Age [at the end of in (months)]	No.	%
4	6	5.7
6	32	30.7
8	52	50.0
10	78	75.0
12	86	81.1
II. Type of weaning feed		
Home made	80	77
(Ricegruel, Khichri, Dalhia Mashed Potatoes/Bananas others)		
Commercial	24	23

In 18 (17.4%) weaning not started at all.

Discussion

In the present study only 17 mothers (8.5%) initiated breastfeeding within first three hours of birth, as comparable with other studies (4,5). This delayed initiation of breastfeeding is common in our country and this custom has perpetuated administration of prelacteal feeds. In our study this practice was done by 89% mothers. A similar prevalence of prelacteal feeds (50 to 100%) has been reported from other studies (5-7).

Mothers who had regularly attended antenatal clinics had not initiated breastfeeding even within 24 hours of delivery properly (38.7% vs 60.3%) as compared to mothers who had not attended such clinics. This suggests that a proper motivation and awareness regarding breastfeeding was not being imparted during antenatal checkups.

Maternal education and family type had no significant correlation with initiation of breastfeeding as observed in other study, which was however conducted in urban areas (8). The mothers who belonged to relatively better socio-economic status initiated breastfeeding within first 3 hours.

Mothers who had earlier sibs also started breastfeeding their children within 3 hours. This was found only with maternal history of breastfeeding in previous babies.

Top feeds were introduced before 4 weeks by mothers who had attended antenatal clinics, who had relatively better education status, who had undergone LSCS and those coming from higher socio-economic strata. Family type did not show any significant correlation with introduction of top feeds.

Age of exclusive breastfeeding was significant more in mothers who did not attend antenatal clinics, were illiterate, belonging to low socio-economic group and who had earlier sibs. Similar studies revealed such correlation only with maternal education (5,8).

The commonest reasons for starting top feeds was not enough milk, as perceived by 43% mothers in the present study, similar to other studies (2,5,8). On questioning how mothers assessed adequacy of breastfeeds, none of them gave the reasons as poor weight gain and passage of inadequate amount of urine (two reliable signs of inadequacy of breastfeeds). On the contrary, they revealed some subjective signs which were interpreted to mean that milk was inadequate e.g. baby was not satisfied with feeds, cries often, wants frequent feeds or bites on the nipple. Similar signs have been seen in previous study on perceived breast milk insufficiency (8). Introduction of early top feeds with a wrong notion of inadequate milk appears to be most detrimental to exclusive breastfeeding. If top feeds are given, there is less sucking leading to less secretion of milk and lactation failure. Other reasons for introduction of top feeds were relative's advice, health worker's advice, maternal and infant illness

and subsequent pregnancy. In the event of maternal and infant illness, introduction of top feeds further reduce breast milk production. In the present study, bottle feeding rate was 64%. Other studies show that between 50% to 100% babies in our country are bottle fed (4,9,10)

Significant number of mothers i.e. 51 (25.5%) used formula milk. Though living in rural areas it was mostly because of relative as well as health worker's advice, effect of urbanization, advertisements, ignorance of mother and lack of efforts by health workers. Majority of mothers did not know exact preparation of such feeds and were giving by unhygienic bottles and in diluted way. This indirectly is detrimental to infant's health. Of the 106 mothers who started the babies on animal milk (cow, goat and buffalo), 89 (84.8%) gave diluted milk in varying proportion from 1:1 to 1:4.

These observations further highlight the critical role of ignorance of mothers and lack of efforts to educate them in existing health delivery system. Mothers need to know hygienic methods (including bottle hygiene) of giving artificial or animal milk wherever necessary and giving undiluted milk if top feeds are required.

Home made weaning feeds such as rice gruel, khichri, dalhia, mashed potatoes / bananas and others were used by 80 mothers (77%). Twenty-four mothers (23%) believed in commercial weaning feeds in present study as compared to other studies, where it ranged from 5.3% to 8.3% (5,11). Mothers using commercial weaning feeds were influenced by advertisements in television as well as in magazines. Some of these mothers used on advice of health workers. The health workers are often influenced by various drug companies.

It is clear that delayed initiation of breast feeding, use of prelacteal feeds and early introduction of top feeds are prevalent among rural mothers. Bottle feeding has infiltrated quite widely into the villages and even commercial milk formula and weaning feeds are used by many mothers. It is mandatory that mothers are educated during their antenatal period regarding

undisputed beneficial effects of breastfeeding in early infancy, trained and supported to breastfeed their newborns soon after birth, and educate to overcome wrong notions regarding insufficient milk. Immunization booths are ideal platforms to educate mothers regarding proper breastfeeding and weaning practices. Home made weaning feeds are to be promoted and mothers should be made aware regarding proper timing of feeds. Television spots, magazines, posters and radio plays can be effectively used to educate mothers regarding proper feeding practices.

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