

Original Research Article

Factors associated with exclusive breastfeeding in the first six months of life in Northern India

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ABSTRACT

Background: Breast milk is a complete food for growing children until 6 months of age, and mothers play a important role in their growth and development. So, promoting their attitude towards the benefits of breastfeeding ensures guarantee child health in the future. The objective of this study was to assess the knowledge and practice of Breast feeding with their determinants among mothers in Jammu.

Methods: In this cross-sectional study, 200 mothers attending the well-baby clinics in Jammu from June 2017 to February 2018 were selected, data was collected by face-to-face interviews using a structured questionnaire.

Results: Of the 200 women, 70% were 21–30 years of age and 61% of mothers have studied only up to primary school. Majority of deliveries (80%) took place in government run hospitals. 75% of the infants were born out of normal delivery. 47.5% of mothers did not feed colostrum to their babies. Breastfeeding was initiated in only 13% of babies within one hour after birth. 52.5% babies were fed with pre-lacteals. In 7% of babies bathing was done immediately after birth.

Conclusions: Maternal knowledge and attitude towards exclusive Breast feeding was moderate. It is essential to plan for mothers by officials in order to promote breast-feeding in the first 6 months of baby's life to enhance positive maternal attitude in this regard.

Keywords: Early breastfeeding initiation, Exclusive breastfeeding, Health counselling

INTRODUCTION

Breast-feeding is recognized as the most appropriate method for feeding infants and is closely related to health during infancy and to chronic disease prevention in adulthood.^{1,2} 'Exclusive breast-feeding' for the first six months of life and continued breast-feeding up to 2 years of age or beyond are recommended by the World Health Organization (WHO) and other authorities.³

Both the baby and the mother benefit from Breast feeding on the short and long-term as noted by several studies.^{4,5,6} In newborns, it promotes the development of cognitive skills, immune system and growth.⁷⁻¹⁰ It reduces the

mother's risk of developing breast cancer.^{11,12} Also, it reduces the risk of sudden infant death syndrome (SIDS), type 1 diabetes and many other diseases.^{4,5,7,11,13,14}

The accumulated evidence over the last three decades on breast feeding benefits is overwhelming.⁷

Several studies tried to assess the knowledge of Breast feeding benefits, misconceptions, practices, and other aspects and the trends of BF practices locally, regionally, and globally. The present study aimed to assess the level of knowledge about Breast feeding with its determinants among a sample of women attending well baby clinics in Jammu.

METHODS

The objectives were to identify different patterns of breastfeeding among the mothers of infants between 0 and 6 months of age, to assess their breastfeeding knowledge and to identify the variables influencing the different patterns of breastfeeding in the study population. The definitions of breast-feeding used in this paper are as follows.¹⁵⁻¹⁷

- Any breast-feeding: the infant receives breast milk (direct from the breast or expressed) with or without other drink, formula or other infant food.
- Exclusive breast-feeding: breast-feeding while giving no other food or liquid, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicine.
- Almost exclusive breast-feeding: the infant may receive small amounts of culturally valued supplements – water, water-based drinks, fruit juice and ritualistic fluids.
- Full breast-feeding: includes ‘exclusive breast-feeding’ and ‘almost exclusive breast-feeding’.

Pre-tested questionnaire cum interview schedule was used to collect relevant information. All the relevant information from initiation of breast feeding, person giving information regarding breastfeeding, pre-lacteal feeding, and reason of breastfeeding and cessation of it was obtained.

The data was analyzed by considering breastfeeding practices as the dependent variable and then analyzing it against the different independent variables. Data was compiled, and all the analysis was done through SPSS-10 (Statistical package for social science) software package. For analysis of study data first dependent and independent variables were identified and then appropriate statistical analysis was done on them.

Independent variables

Dwelling family type, mother’s age, mother’s education, socioeconomic status, type of delivery and place of delivery were taken as the independent variables effecting infant feeding practices.

Dependent variables

Infant feeding practices

- Initiation of breast feeding.
- Type of first feed, Breastfeeding experience.
- Reason for initiation of top feeding.
- Type of top feed.
- Reason for giving top milk.
- Partial breastfeeding.
- Full breastfeeding.
- Reason of cessation of breastfeeding.

- Information about breastfeeding were taken to get the complete picture of infant feeding practices in these regions.

The data was analyzed by considering these dependent and independent variables in mind. All the dependent variables were analyzed against the independent.

Inclusion criteria

- Mothers of infants between 0 to 6 months of age attending the well-baby clinic for immunizations, growth monitoring,
- Treatment of minor illnesses,
- Health check-ups, follow-up, and so forth were interviewed after taking an informed consent.

Exclusion criteria

- Infants who were adopted
- Severely ill (hospitalized in intensive care units)
- Infants who had medical indications to receive breast milk substitutes, such as maternal HIV infection, drug abuse, chemotherapy, maternal consumption of anticonvulsant drugs (phelbamate or topiramate), or maternal radiotherapy, as well as infants with galactosemia or phenylketonuria.
- Secondly mothers who refused to participate.

Statistical analysis

The analytic tools that were used in the study for the presentation and interpretation of results were mostly those of time tested tabular analysis and percentages, besides certain specific statistical indices and tests. Data was compiled, and all the analysis was done through SPSS-10 (Statistical Package for Social Science) software package.

RESULTS

The study size included 200 mothers with infants upto the age of 6 months. 70% of the mothers were in the age group of 21-30 years.

61% of mothers have studied only upto Primary school. Majority of deliveries (80%) took place in government run hospitals, 15% in private nursing homes/hospitals whereas 5% were conducted by traditional birth attendant. 75% of the infants were born out of normal vaginal delivery with 25% caesarean sections.

Of all the mothers 47.5% did not feed colostrum to their babies. Majority of the mothers (74.73%) believed that baby was not able to suck properly, 22.10% believed it to be unsafe where as 3.15% reported as advised by elders. Breastfeeding was initiated in only 13% of babies within one hour after birth.

Table 1: Socio demographic characteristics of mothers and babies.

Variables	Frequency	%
Age of mother (in years)		
<=20	4	2
21-30	140	70
31-40	56	28
House of respondent		
Rent	42	21
Own	158	79
Type of family		
Nuclear	118	59
Joint	82	41
Education of mother		
Illiterate	36	18
Primary school	122	61
Secondary school/Higher	42	21
Age of infant		
≤1 month	26	13
1-3 months	74	37
3-6 months	100	50
Socioeconomic status		
Poor	124	62
Middle	68	34
High	8	4

Non-initiation was due to 55% reporting no milk let down, 23% saying not fed due to exhaustion, 10% said baby did not suck, 12% reported as were not told by anybody to feed. 52.5% babies were fed with pre-lacteals, most common being Honey in 54.28% followed by Ghutti (Herbal paste) in 25.71%.

61.90% reported given as a traditional practice, 29.52% to give first feed as sweet, 8.57% as mother was unable to feed. In 7% of babies bathing was done immediately after birth while another 46% given bath within one week of birth. Participant characteristics are listed in Table-1 and care practices in Table 2.

DISCUSSION

The present study was conducted on mothers attending well baby clinics at Jammu city. It included 200 mothers and their infants. Majority of the infants were from low income families with less educated mothers. Colostrum is nutrient rich fluid secreted by mammary glands which helps in the development of immunity in the newborn.¹⁸ Present study found 47.5% of mothers did not feed colostrum to their babies.

It was more than as reported by Reshma et al (16%) in a study done in Mangalore.¹⁹ World Health Organization (WHO) recommends that mothers initiate breastfeeding within one hour of birth. EBF for the first 6 months of

life, help in ensuring young infants the best possible start to life.^{20,21}

In present study only 13% of babies were breastfed within 1 hour after birth. The multi-indicator survey conducted in 2000 also showed that 37.0% were breastfed till 3 months of age, which declined to 16.0% at the age of 6 months.²²

The effect of time of initial breastfeed on subsequent establishment of breastfeeding and duration has been documented.^{23,24}

The earlier the initiation the better the establishment and longer the duration of breastfeeding. It also ensures prompt intake of colostrum and exclusion of contaminated pre-lacteals.

In a study done in urban slum of Delhi it was reported as 12% comparable to present study but both far below than a study conducted in Turkey where it was initiated in 84.3% within first hour.^{25,26}

Pre-lacteal feeds are foods given to babies before establishing breastfeeding or before breast milk comes in usually on the first day of life.^{27,28,29}

Pre-lacteal feeds are common in communities that have not been mobilized and studies also including from India have reported their use even up to 90-100%.^{30,31,32} Giving pre-lacteals is usually in the context of a ritual where the person administering it holds an important position within the family or community.^{27,33}

Studies have shown that it could be due to reason of insufficient milk supply.^{34,35} In present study 105 (52.5%) babies were given pre-lacteal feed in the form of a honey 57(54.28%) followed by ghutti 27 (25.71%).

Reshma et al reported 31% babies fed with sugar water or honey or jaggery water.¹⁹ In another study conducted in Dhaka 40% of babies were given honey while 16% sugar water.³⁶ The major problem of giving these pre-lacteals leads to delay in the initiation of breast feeding.³⁷

In a study from Nepal pre-lacteal feeding was reported by 841 (26.5%) among 3948 mothers. Majority of the mothers reported milk other than breast milk fed to their babies as a pre-lacteal feed.³⁸

Only 7% babies were bathed immediately after birth. In another study from an urban slum of Delhi 34 % were bathed after birth.²⁵ In Nepal 92% had been bathed within the first hour.³⁸ In present study it was only a meagre percentage of 27.5% who were fed breastmilk exclusively. Study conducted by Oche et al in Nigeria in which 31% mothers practiced exclusive breastfeeding.³⁹

Table 2: Infant care practices.

Infant care practices	Mothers who said YES	%
Colostrum not given (n= 200)		
Reasons (n= 95)	95	47.5
Not able to suck properly	71	74.73
Harmful for baby	21	22.10
Elders advice	3	3.15
Breast feeding within (n=200)		
1hour	26	13
1-4 hour	50	25
4-12 hour	78	39
12-24hpur	24	12
>24hour	22	11
Reasons of non-initiation within 1 hour		
No milk letdown	110	55
Maternal exhaustion	46	23
Baby not sucking	20	10
Not told by caregivers to feed	24	12
Pre-lacteal feeds given (n=200)		
Type of feed (n = 105)	105	52.5
Honey	57	54.28
Ghutti	27	25.71
Water	12	11.42
Formula	9	8.57
Reasons for pre-lacteal feed		
Traditional practice	65	61.90
First feed to be sweat	31	29.52
Mothers unable to feed	9	8.57
Bath given (n=200)		
Immediately after birth	14	7
Within a week	92	46
After one week	114	57
Exclusive breast feeding over the month prior to interview (n=200)		
Reasons for not giving (n=145) exclusive breast milk	55	27.5
Less milk output	71	48.96
Breast milk less nutritious	29	20
Not necessary to give upto 6 months	19	13.10
Baby hungry still after breastfeeding	26	17.93

Present study found a very low percentage of mothers giving exclusive breastfeed. Compared to developed countries, rates for six months of exclusive breastfeeding were found to be low: 16.3% in the United States 13.8% in Canada and 13.4% in Hong Kong.^{40,41,42}

Higher prevalence was found in developing county like Indonesia 42% and India 46.4% .^{43,44} It is a fact that working mothers are inclined towards non- exclusive feeding but here it is reverse.

But education of mothers is important which is quite low in our sample. And we think that deep rooted socio-cultural factors more responsible than any other factor put together.

CONCLUSION

A small proportion of infants are exclusively breastfed during the first 6 months, despite what is recommended in the national and global infant and young child feeding guidelines.

Recommendations

Corroborative intervention programme initiatives, directed at creating more awareness and encouraging women adoption of exclusive breastfeeding especially in the first 6 months of the infant's life, should be encouraged. Government and institutional policies compatible with the encouragement of working nursing mothers to practice wholesome breastfeeding should be

put in place. Due to the enormous impact of healthcare workers in breastfeeding initiation and continuation, the use of primary healthcare facilities to promote the Baby Friendly Hospital Initiative (BFHI) should be intensified. Furthermore, women use of the primary healthcare centers for both antenatal and delivery should be encouraged.

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