

A Study on Infant Feeding Practices in Rural Areas of Warangal District, State of Telangana, India

S.M.V. Kumari¹, G. Sudha Rani², B. Babu Rao³

ABSTRACT

Introduction: Infant feeding practices are critical determinants of survival, growth and development during infancy. Breast feeding is required for child survival, birth spacing and prevention of childhood infections. Complementary feeding is essential from six months of age while continuing breast feeding to meet the needs of the growing baby, hence the aim of current research was to study the infant feeding practices in Rural Warangal, Telangana state, India.

Material and Methods: A cross-sectional study of 158 mothers of infants in the age group of 0-12 months attending the immunization sessions at rural health centres was conducted using a pre-designed pretested proforma.

Results: Pre lacteal feeding was seen in 57% and is associated significantly with literacy status of mothers ($p < 0.0001$). Colostrums discarded by 20.3% and was significantly associated with place of delivery ($p < 0.0001$) and literacy status of mothers ($p < 0.0001$). Exclusive breast feeding for 6 months of age was seen in 60.6% with significant association with literacy status of mothers ($p < 0.0001$). Initiation of breast feeding within 1 hour was observed in 40.5% and within 12 hours in 82.9%. Significant association of initiation of breast feeding with type of delivery ($p < 0.0001$), with economic status ($p = 0.02$) was seen. Complementary feeding was seen in 46.2% and introduction at 6 months in 42.5%. Literacy status was significantly associated with introduction of complementary feeding at 6 months of age ($p = 0.02$).

Conclusion: Information, Education and Communication activities are required to improve breast feeding and weaning practices.

Keywords: Mothers, Pre Lacteal Feeds, Colostrum, Exclusive Breast Feeding, Initiation of Breast Feeding, Complementary Feeding

INTRODUCTION

Infant feeding practices comprising of both breast feeding as well as complementary feeding have a major role in the health and morbidity profile among children. An infant is a child in the age group of 0-12 months. Childhood under nutrition in our country mostly originates from inadequate and faulty practices of feeding new born and children coupled with exposure to contaminated environment¹ Poor feeding practices are a major threat to social and economic development.²

Breast feeding is a traditional practice universally. Breast feeding is important for child survival, health, nutrition, development of baby trust, sense of security, development of brain and learning readiness² In 1991, UNICEF and WHO jointly launched BFHI which aims to promote breast feeding in hospitals through "10 steps to successful breast feeding." First seven days of August every year is celebrated as world breast feeding week all over the world to raise the awareness regarding the importance of

breast feeding.

Early introduction of top feeds was common because mothers thought either breast milk to be insufficient or it was in the event of their illness or that of the child. The harmful practice prevailed either due to the belief that the child cannot digest whole milk or because of economic reasons³

Complementary feeding is extremely essential from six months of age while continuing breast feeding to meet the needs of the growing baby² Knowledge regarding time, consistency and quantity of complementary feeds depends on socio-economic conditions, literacy status of mother, traditions and beliefs⁴

Correct Norms for Infant and Young Child Feeding²:

- Initiation of breastfeeding immediately after birth, preferably within 30 minutes.
- Exclusive breastfeeding for the first six months i.e. the infant receives only breast milk and nothing else, no other milk, food, drink or water.
- Appropriate and adequate complementary feeding From six months of age while continuing breastfeeding.
- Continued breast feeding upto the age of two years or beyond.

The feeding recommendations if followed appropriately can decrease infant mortality by 19% and prevent malnutrition especially in developing countries as ours.⁵

Hence the present study was done with an objective to determine infant feeding practice in rural areas of Warangal.

MATERIAL AND METHODS

The present study was conducted after institutional ethical approval in the areas covered by Rural Health Centre, Wardhannapet with 2 subcentres, Panthini and Bollikunta of Warangal District, State of Telangana, India from June 2008 to May 2009.

Study design: A cross-sectional study was conducted wherein 20% of the mothers of infants in the age group of 0-12 months attending the immunization session were selected and interviewed by the investigator personally and the relevant information was recorded using a pre-designed, pretested and precoded proforma which was structured with the help of the

¹Assistant Professor, ³Associate Professor, Community Medicine Department, Osmania Medical College, Hyderabad, ²Assistant Professor, Community Medicine Department, Kakatiya Medical College, Warangal, Telangana, India

Corresponding author: Dr. S.M.V. Kumari, Assistant Professor, Department of Community Medicine, Osmania Medical College Hyderabad, 500095, India

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faculty.

Sampling technique: The Rural Health Centre, Wardhannapet with 14 villages covers a total population of 23,004 out of which the total number of infants are 793 and 20% of this which comes to 158 infants are studied. At each visit from among the infants attending the immunization session 20% were selected by systematic random sampling method and their mothers were interviewed.

STATISTICAL ANALYSIS

The necessary tables and graphs were prepared, the data was analysed manually in the initial stages, and later computerised analysis was done using Epi Info software with the help of chi square test.

RESULTS

General profile: Out of 158 infants boys were 81 (51.3%) and girls were 77 (48.7%) with a ratio of 1:0.95. First born were 34%.

Socio-demographic profile: All infants were Hindus, out of which 94(59.5%) of them belonged to backward class, 49(31%) to schedule caste, 14(8.9%) to schedule tribe and 1(0.6%) to other caste, 83 (52.5%) to nuclear families with an average family size of 5.1 and 89.9% belonged to below poverty line.

Breast feeding practices: In the present study 158(100%) infants were breastfed. Pre lacteal feeding is seen in 57% out of which 51.1% were given honey with fingers.

Among 54 (34.2%) illiterate mothers 44(81.5%) mothers were administering pre lacteal feeds showing a positive significant association ($X^2 = 20.12, P < 0.0001$) (Table-1).

Breast feeding was initiated within 1 hour of birth in 64 (40.5%) and within 12 hours in 131 (83%) (Figure-1).

Initiation of breast feeding is significantly associated with type of delivery ($X^2=47.4, P < 0.0001$) and economic status ($X^2=5.23, P=0.02$). The reasons for delayed initiation of breast feeding by more than 12 hours after delivery were that majority of mothers had undergone surgery (48.1%) or had delayed initiation of lactation (40.7%).

Colostrum was discarded by 20.3% mothers and is statistically significant with place of delivery ($X^2=33.97, P < 0.0001$) (Table-2) and with literacy status of mothers ($X^2=29.73, P < 0.0001$).

Exclusive breast feeding for 6 months in infants above 6 months of age is seen in 60.6%. Among 19(28.8%) illiterate mothers of infants of more than 6 months of age majority of them 14(73.7%) have not practised exclusive breast feeding for 6 months and is found to be statistically significant ($X^2=13.14, P < 0.0001$) (Table-3).

Artificial feeding was introduced to 16(10.1%) infants out of which majority (37.5%) at the age of 1 month and 87.5% was due to inadequate breast milk. Tinned milk powder or packaged milk is given in 56.3% and cow's milk in 31.3% with 1:1 dilution.

Complementary feeding introduced in 46.2% infants out of which 42.5% at 6 months of age with rice or wheat porridge as first weaning food (45.2%).

Among 19(26%) illiterate mothers 15(78.9%) have not Introduced complementary feeding at 6 months of age and

| Literacy status of mothers | Pre lacteal feeding | | |
|----------------------------|---------------------|------------|-------------|
| | Yes | No | Total |
| Illiterate | 44 (81.5%) | 10 (18.5%) | 54 (34.2%) |
| Literate | 46 (42.2%) | 58 (55.8%) | 104 (65.8%) |
| Total | 90 (57%) | 68 (43%) | 158 (100%) |

$X^2=20.12, P < 0.0001$

Table-1: Pre lacteal Feeding Vs Literacy Status of Mothers

| Place of Delivery | Colostrum Feeding | | |
|-------------------|-------------------|------------|-------------|
| | Yes | No | Total |
| Hospital | 121 (86.4%) | 19 (13.6%) | 140 (88.6%) |
| Home | 5 (27.8%) | 13 (72.2%) | 18 (11.4%) |
| Total | 126 (79.7%) | 32 (20.3%) | 158 (100%) |

$X^2=33.97, P < 0.0001$

Table-2: Colostrum Feeding Vs Place of Delivery

| Literacy Status | Exclusive Breast Feeding | | |
|-----------------|--------------------------|------------|------------|
| | Yes | No | Total |
| Illiterate | 5 (26.3%) | 14 (73.7%) | 19 (28.8%) |
| Literate | 35 (74.5%) | 12 (25.5%) | 47 (71.2%) |
| Total | 40 (60.6%) | 26 (39.4%) | 66 (100%) |

$X^2=13.14, P < 0.0001$

“On demand” breast feeding schedule seen in 100%.

Table-3: Exclusive Breast Feeding For 6 Months Vs Literacy Status of Mothers of infants >6 months of age

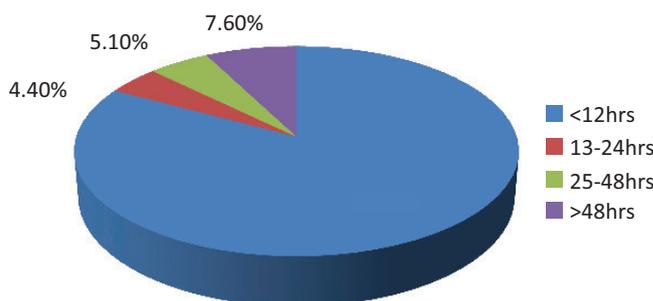


Figure-1: Time of Initiation of Breast Feeding

is found to be statistically significant ($X^2=4.82, P=0.02$). Sufficient breast milk is the main reason stated by 70.6% for late introduction of complementary feeding.

DISCUSSION

Infant feeding practices constitute a major component of child caring practices apart from socio-cultural, economic and demographic factors⁶

In the present study breast feeding practice is universal may be due to tradition and less exposure to modernisation. This finding is in concurrence with WHO collaborative study (1981)⁷ where 99% -100% of babies in the rural areas are breast fed and also in a study by David Osrin et al (2002)⁸ in Nepal where 99% were breastfed.

Prelacteal feeding seen in 57% out of which 51.1% were given honey with fingers. In Lucknow, Reema Verma et al (2006)⁹ observed 35% giving honey with water.

The World Health Organization recommends initiation of breast feeding within 1 hour of birth which provides benefits for both mother and child. In the present study breast feeding was initiated within 1 hour of birth in 64 (40.5%) and within 12

hours in 131 (83%) with a significant association with economic status ($P=0.02$). In India 15.8%² and in Nepal 63%⁸ initiation of breast feeding within 1 hour was observed. In contrast to a study by Deeksha Sharma et al (2005)¹⁰ initiation of breast feeding within 12 hours is seen maximum among upper socio-economic class.

Colostrum was discarded by 20.3% mothers in concurrence with Shalini Chandrashekar et al (1995)¹¹ in rural Karnataka where 27% of mothers rejected colostrum.

Colostrum feeding is statistically significant with place of delivery ($X^2=33.97$, $P<0.0001$) and with literacy status of mothers ($X^2=29.73$, $P<0.0001$). In Vishakapatnam, Andhra Pradesh, Narahari S et al (2009)¹² colostrum rejection due to high illiteracy status and in rural South Orissa by Suvra Pathi et al (2005)¹³ no associated with literacy status was observed.

Exclusive breast feeding for 6 months in infants above 6 months of age is 60.6%. Globally less than 40% of infants under 6 months of age are exclusively breastfed (WHO 2009)¹⁴ Among 19(28.8%) illiterate mothers of infants of more than 6 months of age majority of them 14(73.7%) have not practised exclusive breast feeding for 6 months and is found to be statistically significant ($X^2=13.14$, $P<0.0001$) (Table-3).

“On demand” breast feeding schedule seen in 100%. This is in concurrence with a WHO collaborative study (1981)⁷ on rural Indian women where 100% of mothers breast fed their infants on demand. Madhu K et al (2009)¹⁵ in their study in rural Bangalore found that 84% of mothers breastfed on demand.

Among 16 (10.1%) infants receiving artificial feeds 37.5% received at the age of 1 month with 1:1 dilution. In rural Delhi, a study by Taneja DK et al (2003)³ 40.6% mothers introduced artificial feeding before the age of 4 months and 66.7% because of insufficient breast milk.

Complementary feeding was introduced in 46.2% infants. Introduction of complementary feeding at 6 months of age and literacy status of mothers is found to be statistically significant ($P=0.02$). Sufficient breast milk is the reason seen in 26.4% in a study by Taneja DK et al (2003)³ and in 5.8% in a study by Anju Aggarwal et al (2008)⁴ for late introduction of complementary feeding.

Infant feeding has an important role in health and morbidity profile among children so, to ignore it is to promote mortality, suffering and personal and national economic disaster.

Limitations

The study being clinic based the subjects were from the population attending health centres and hence it may not be a representative of the general population. The infants attending the immunization session along with other members of the family were excluded from the study.

CONCLUSION

Extensive Information, Education and Communication activities through mass media and implementation of relevant programmes at community level to create awareness among mothers regarding the importance and advantages of colostrum feeding, early initiation of breast feeding, exclusive breast feeding for 6 months, introduction of complementary feeding at 6 months, harmful effects of prelacteal feeding and early introduction of top feeds.

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