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Original Research Article

Infant Feeding Practices among Rural Mothers of Tirupati

Anju Ade[1], Y Bhavani[2]

[1]Professor, [2]Assistant Professor,
Dept of Community Medicine, SVIMS, Shri Padamavati Medical College for Women,
Tirupati, Andhra Pradesh.

Corresponding Author: Anju Ade

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ABSTRACT

Background: Under any circumstances, breast milk is the ideal food for the infant. No other food is required by the baby until 6 months after birth. Objectives: 1.To study infant feeding practices among rural mothers.2.To find out factors affecting infant feeding practices.
Materials and Methods: A Cross-sectional study was conducted at Rural health centre was conducted. All the rural mothers who are attending immunization clinic for their children in the month of May-June were included in the study, irrespective of any sample. Infant Young Child Feeding (IYCF) practices questionnaire given by WHO was used to collect the data. The data was analyzed using SPSS Version 16.
Results: Only 32% mothers initiated breastfeeding with in half to one hour of delivery. 71% of infants were exclusively breast fed (up to 6 months of age). 34% mothers gave their infants pre-lacteal feeds and 39% mothers initiated complimentary feeding at 6 months of age. Bottle feeding was observed in 34% of all the children.
Conclusion: Traditional beliefs influenced infant feeding practices especially in initiation of breast feeding, exclusive feeding and bottle feeding. Discarding colostrums, giving pre-lacteal feeds, not feeding exclusively and bottle feeding contributes to malnutrition and various types of infection. Awareness of the health benefits of colostrums should be increased by further breast feeding education and support.

Keywords: Infant and young child feeding, Bottle feeding, Breast feeding, Colostrums.

INTRODUCTION

Under any circumstances, breast milk is the ideal food for the infant. No other food is required by the baby until 6 months after birth. Under normal conditions, Indian mothers secrete 450 to 600 ml of milk daily with 1.1gm protein per 100 ml. The energy value of human milk is 70 kcals per 100 ml. A child who is breast-fed has greater chances of survival than a child artificially fed. Prolonged breast feeding does protect the infant from early malnutrition and some infections. The data suggest that infant mortality rates in developing countries are 5-10 times higher among children who have not been breast-fed or who have been breast-fed for less than 6 months. [1] A breast- fed baby is likely to have an IQ of around 8 points higher than a non breast fed baby. Despite the marked advantages of breast-feeding, its popularity has declined significantly in many parts of the world. Early initiation of breast feeding lowers the mother's risk of post partum haemorrhage and anaemia, boosts mother's Immune system, delay's next pregnancy and reduces the insulin of diabetic mothers. It protects mothers from ovarian and breast

cancers and osteoporosis. [2] Weaning is a gradual process starting around the age of 6 months, because the mother's milk alone is not sufficient to sustain growth beyond 6 months. It should be supplemented by suitable foods rich in protein and other nutrients. These are called "supplementary foods". These are usually cow's milk, fruit juice, soft cooked rice, suji, dhal and vegetables. [1] Since 1993 WHO's efforts to improve infant and young child nutrition have focused on promoting breast feeding. It has been calculated that breast feeding could prevent deaths of at least one million children a year. A new "baby-friendly hospital initiative" (BFHI), created and promoted by WHO and UNICEF, has proved highly successful in encouraging proper infant feeding practices, starting at birth [3] The "Baby friendly" hospitals in India are also expected to adopt and practice guidelines on other interventions critical for child survival including antenatal care, clean delivery practices, essential new-born care, immunization and ORT. [4]

Objectives:

1. To study infant feeding practices among rural mothers.
2. To find out factors affecting infant feeding practices.

MATERIALS AND METHODS

This Cross-sectional study was conducted at rural health centre, Mangalam of department of Community Medicine of SVIMS, SPMC (W), Tirupati. This RHTC caters to about 248587 population of the field practice area. All the rural mothers who attended immunization clinic for their children in the month of May-June were included in the study, irrespective of any sample. Infant Young Child Feeding (IYCF) practices questionnaire given by WHO was used to collect the data by interviewing the mothers. Verbal consent was obtained from study participants. Women who were not willing to give consent were excluded from the study. Data was entered into excel spreadsheet analyzed in SPSS version 16. Findings were described in terms of proportions and percentages to study the infant feeding practices.

RESULTS

A total of 100 mothers of children were interviewed. Most of mothers were in 20-30 yrs and majority of them were housewife i.e. 64 % and Majority of mothers had primary to higher secondary level of education. Most of the mothers belonged to Nuclear family i.e.60%.

As shown in table No 1,only 32% mothers initiated breastfeeding with in half to one hour of delivery followed by one to four hours (36%). 21% mothers started breast feeding after 24 hours and 4% mothers did not breast fed their infants at all.

Table No 1: Initiation of breast feeding

Initiation of breast feeding.	Frequency	Percent
Within ½ - 1 hour	32	32.0
1-4 hour	36	36.0
4-12 hour	05	5.0
12-24 hour	02	2.0
After 24 hours	21	21.0
Not breast fed at all	04	4.0
Total	**100**	**100.0**

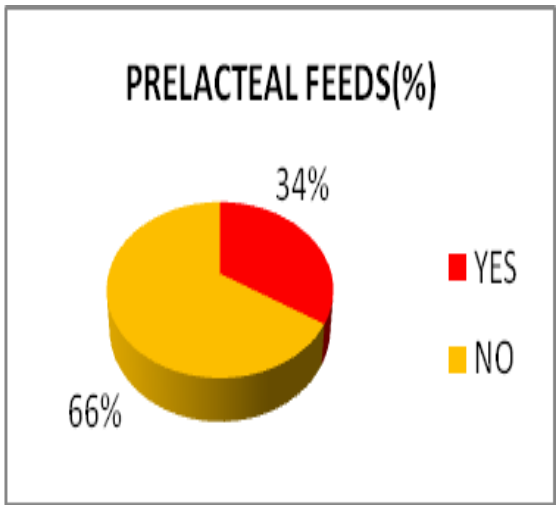

Figure 1:Pre-lacteal feeds.

As shown in Figure 1, 34% mothers gave their infants pre-lacteal feeds. The various pre-lacteal feeds given were water mixed with sugar, honey, cow's milk, goat milk, infant formulas suggested by doctors in cases of lactation failure.

As shown in Figure 2, 71% of infants were exclusively breast fed (up to 6 months of age). 29% infants were not exclusively breast fed. The various reasons

given for not breast feeding exclusively by mothers were insufficient breast milk, for the strength of the baby, feeding problems of the babies (due to admission in hospitals) and because of nature of work of mothers. (Table No 2).

As depicted in Table No 3, 39% mothers introduced complimentary feeding at 6 months, 14% mothers introduced solids when child was below 6 months of age, 33% mothers introduced solids after 6 months, and 14 % mothers not introduced any solids till now as infants were below 5-6 months of age. Nature of complimentary feeding was watery in 3%, mashed (semisolid) in 53% and among 30% both watery and mashed foods were fed by mothers. Types of complimentary feeds were homemade-37%, tinned or ready to use (infant formulas)-16% and in 33% mothers used both varieties.

Table No 2: Reasons for not feeding exclusively

Reasons	Frequency	Percent (%)
Insufficient milk	08	8.0
Working mother	16	16.0
Feeding problems	07	7.0
For the strength of the baby.	03	3.0
Not applicable	66	66.0
Total	**100**	**100.0**

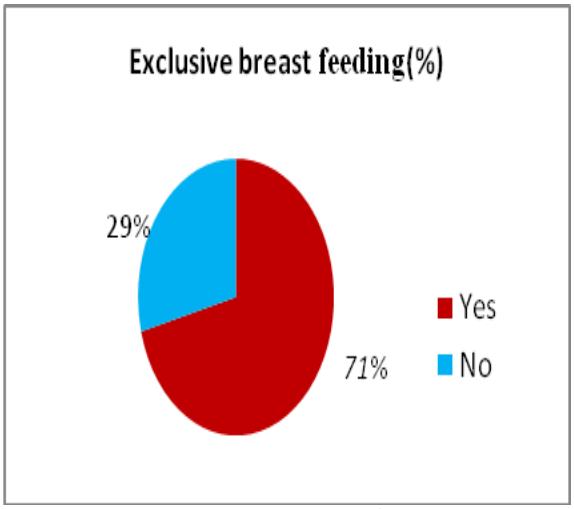

Figure 2: Exclusive breast feeding.

Table No 3: Initiation of complimentary feeding

Complimentary feeding					
Initiation	**Percent**	**Nature**	**Percent**	**Type**	**Percent**
< 6 months	14.0	Watery	3.0	Homemade	37.0
6 months	39.0	Mashed	53.0	Tinned/Ready to use	16.0
> 6 months	33.0	Both	30.0	Both	33.0
Not introduced complimentary feeding.	14.0	Not yet started	14.0	Not started Complimentary feeding.	14

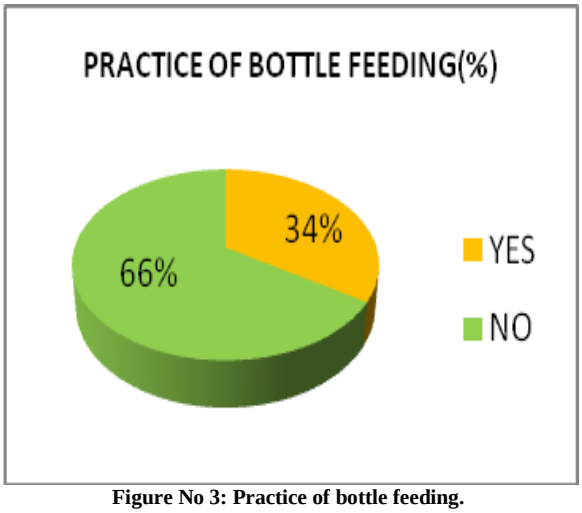

Figure No 3: Practice of bottle feeding.

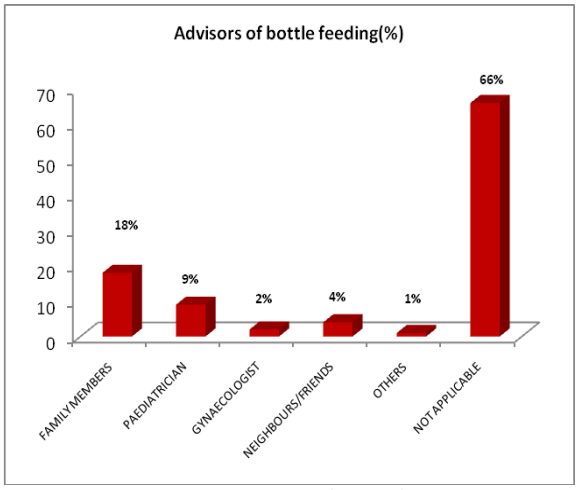

Figure No 4: Advisors of bottle feeding.

As shown in Figure No 3, bottle feeding was observed in 34% of all the children. Advisors of bottle feeding were family members, pediatricians, friends/neighbors, Obstetricians. (Figure No 4)

DISCUSSION

A total of 100 mothers of newborns to 24 months infants were interviewed. Most of mothers were in 20-30 yrs and majority of them were housewife i.e. 64 % and majority of mothers had primary to higher secondary level of education. Most

of the mothers belonged to nuclear family. i.e. 60%.

Out of total studied children, only 32% were put on breastfeeding with in half to one hour of birth, followed by one to four hours (36%). 21% mothers started breast feeding after 24 hours and 4% mothers did not breast fed their infants at all. NFHS-4 [5] data of 17 states shows India is just doing average. According to NFHS-4, initiation of breast feeding was 50.5%. According to the National Family and Health Survey-4 [6] 43.6% children in urban and 38.8% children in rural area, under age 3 years are breastfed within one hour of birth in Andhra Pradesh. A study done by Ranjana F. et al. [7] revealed that 20% women initiated breastfeeding newborns within 1 h, 50% women initiated breastfeeding their newborn baby within 6 h, while 30% women initiated breastfeeding their newborn baby after 24 hours whereas in a study by Radhakrishnan S.et al [8] and Motee A et al [9] initiation of breastfeeding within half an hour after delivery was 60.5% and 60.6 % respectively. In another study by Parashar A et al [10] out of the total 200 mothers interviewed, 101 (50.5%) initiated breastfeeding their child within the first hour of birth. Delayed initiation of breastfeeding was common and 35% of babies were not breast-fed even at 48 h of birth in a study by Banapurmath C.R. et al. [11]

In this study, 34% mothers gave their infants pre-lacteal feeds. The various pre-lacteal feeds given were water mixed with sugar, honey, cow milk, goat milk, infant formulas suggested by doctors in cases of lactational failure. Similarly in a study conducted by Nithin Kumar et al, [12] 34.9% mothers had given pre-lacteal feeds to the newborn. In a study by Khan AM et al [13] revealed that pre-lacteal feed was given to 38% (142/374) of the studied children. In a study from West Bengal, [14] pre-lacteal feed was given to 26.7%. But in a study by Banapurmath C.R. [13] found that, all the infants received pre-lacteal feeds and colostrum was rejected by 29% of mothers.

In our study, 71% of infants were exclusively breast fed (up to 6 months of age). 29% of infants were not exclusively breast fed. The various reasons given for not breast feeding exclusively by mothers were - insufficient breast milk, for the strength of the baby, feeding problems of the infants and because of their work. NFHS-4 data [5] shows exclusive breast feeding was 57.0%. Similarly in a study by Nithin Kumar et al, [12] 57.9 % of the mothers practiced exclusive breastfeeding their child. In a study by Parashar A et al [10] exclusive breastfeeding of their children till 5 months of age was practiced by 94.9% of mothers. The prevalence of exclusive breastfeeding was only 34% for the duration of six months in a study by Radhakrishnan S et al [15] while in a study by Taneja DK et al [16] EBF was uncommon (26.4%) as water was started in most infants in the first month itself.

In this study, 39% mothers introduced complimentary feeding at 6 months, 33% mothers introduced solids after 6 months. But this was found to be higher at national level, as reported by NFHS-4 data [5] i.e. 49.6%. Also NFHS 4 data [6] shows children age 6-8 months receiving solid or semi-solid food and breast milk were 72.8% in urban and 50.6 % in rural area of Andhra Pradesh. Motee A et al [9] in their study revealed that complimentary feeding was more commonly initiated around 4-6 months (75.2%). A wide variation in the proportion of children who received complementary feeding at 6-9 months of age was reported from two other studies done in India, that is, 71.7% in Kolkata [17] and 38.7% in Allahabad [18] In a study by Aggarwal A et al, [19] 72% were started on supplementary feeding within 2 months and concluded that the most common reason for early food supplementation was insufficient breast milk. Khan AM et al [13] revealed that out of the 66 children aged between 6 and 9 months, about three-fourths (72.7%) were having complementary feeding. Of the 32 children aged 6-months, 20 (62.5%) were

taking solid, semi-solid, or soft foods. Timely complementary feeding rate was 57.3% among infants from 6 to 10 months age as reported by Banapurmath C.R et al [11] Taneja DK et al [16] revealed in their study that reasons for late introduction of semisolids were ignorance among 53 (50.0%). Mothers who had not started semisolids to their infants by 6 months of age, 33.9% stated that child was too weak to digest and 26.4% stated breast milk to be sufficient as reasons for not starting semi solids.

In this study, bottle feeding was observed in 34% of all the children. Other studies from India, like Parashar A. et al [10] and Khan AM et al [13] reported, bottle-feeding of children was practiced by 22% and in 26.5% of mother's respectively. A study by VR. Parmar et al. [20] stated the various reasons for starting bottle feeding before six months, were insufficient milk (59.7%), working mother (13%), to habituate the baby to bottle (12%) maternal illness and child illness (6.5%). Similarly, a study by Parekh C et al [21] stated that the predominant reasons for the practice of bottle feeding were inadequate breast milk secretion, unable to breastfeed and poor weight gain of baby. In a study by Banapurmath C.R. et al [11] found in their study that the bottle feeding rate was 49.4% among infants below 1 year age. Advisors of bottle feeding were family members, pediatricians, friends/neighbors, Obstetricians etc.

CONCLUSION

Traditional beliefs influenced infant feeding practices especially in initiation of breast feeding, exclusive feeding and bottle feeding. Discarding colostrum, giving pre-lacteal feeds, not feeding exclusively and bottle feeding contributes to malnutrition and various types of infection. Awareness of the health benefits of colostrum should be increased by further breast feeding education.

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