

INFANT FEEDING; BELIEFS AND PRACTICES OF MOTHERS

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ABSTRACT...Objectives: To evaluate the infant feeding beliefs and practices of mothers in our setup. **Design of Study:** A cross-sectional study. **Settings:** Fauji Foundation Hospital. Rawalpindi. **Period:** From Jan 2007 to September 2007. **Materials and Methods:** 366 mothers of infants attending Fauji Foundation Hospital were interviewed by using pre-tested questionnaire. Data was collected for Mothers beliefs and practices regarding infant feeding. Descriptive statistics like percentages, mean and range were obtained by using SPSS version 11. **Results:** 366 mothers from rural and urban areas attending hospitals were interviewed. 63.9% mothers believed that breast milk should be given as first feed. Pre-lacteal feeds were given to 56% of infants. Major source of information for giving pre-lacteal feeds was relatives. At birth, 43.7% mothers discarded clostrum considering it harmful and useless for baby. Frequency of breast feeding was high initially at birth but declined rapidly by early supplementation with bottle feeding. Inadequate weaning in terms of timing, quality and quantity was observed. Cultural beliefs and taboos like hot and cold food influenced 61.5% of mothers due to which they restricted important food items. **Conclusions:** A targeted health education campaign should stress the main advantages of breast feeding. Messages should stress the protective benefits of clostrum and encourage mothers to start breast feeding immediately after birth. Potentially hazardous practices including pre lacteal feeding should be discarded. Local cultural and traditional practices and beliefs regarding different food items should be identified. This will help to improve the food intake of infants by strengthening the useful beliefs and discontinuing harmful ones.

Key words: Feeding practices, Food Habits, Socio-cultural factors, Infant Feeding.

INTRODUCTION

Breast feeding is an important determinant of the nutritional status of the child, which in turn influences growth and development, in addition breast milk protects the child from diarrheal diseases by decreasing exposure to pathogens. In addition to providing nutrition to the child, early initiation of breast feeding also impacts on the health status of the child because clostrum contains antibodies that will protect the child from diseases, strengthen immune system and resistance to infections.

Despite its obvious advantages breast feeding is on decline in many developing countries.

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Exclusive breast feeding is sufficient to meet the demands of growing infant till 6 months of age. After that the caloric requirements are no longer met by breast milk alone, hence, supplementary food, rich in iron should be introduced gradually beginning around 6 months of age and continuation of breast-feeding is recommended^{1,2}.

Protein energy malnutrition (PEM) is one of the major underlying causes of under five morbidity and mortality in Pakistan³. This is due to multiple factors; besides poverty and lack of education, restriction of diet during illnesses is one of them. Even if availability of food is not a problem, harmful beliefs may interfere with the intake of a balanced diet⁴.

The Pakistan National Nutrition Survey reports that 60-80% of under fives are under weight. Amongst them 50% of one year old and 10% of two-year-old children receive liquid only in their diet⁵. There is also a common belief that a child does not need solid food in first year and giving food will cause abdominal distension and diarrhoea⁶. A two-year study of infant feeding in Mali reported that due to some traditional beliefs about food items, weaning was started at an average of 20 months, which affected the growth, and development of their children⁷. Similarly feeding practices studied in Western Orissa reported that weaning was started at 13-18 months in 53% of cases, which was due to mother's strong beliefs concerning hot and cold foods⁸.

These important issues need to be addressed for intervention but before any intervention, it is necessary to get information on infant feeding practices and beliefs of mothers. Hence, this study was designed to determine the infant feeding pattern and complementary feeding practices by mothers and the influences of various beliefs interfering with the feeding of infants, in order to develop more effective breast feeding promotional campaign and a culturally relevant educational program which might help in improving knowledge and practices of mothers regarding infant feeding.

MATERIAL & METHODS

A Cross-sectional survey was conducted at Fauji Foundation Hospital Rawalpindi from January 2007 to

September 2007. Four hundred adult female (aged 18 years or above) respondents who came to the out patient departments as a patient or as an attendant accompanied by an infant were interviewed against a calculated sample size of 388, after taking verbal consent using 5% level of significance, and a prevalence of 50%. A pre-coded and pre-tested questionnaire (both in English and Urdu) consisting of important demographic characteristics and questions regarding beliefs and practices in infant feeding was filled. Descriptive statistics like percentage, mean and range were obtained. SPSS for Windows (version 11) was used as analysis software.

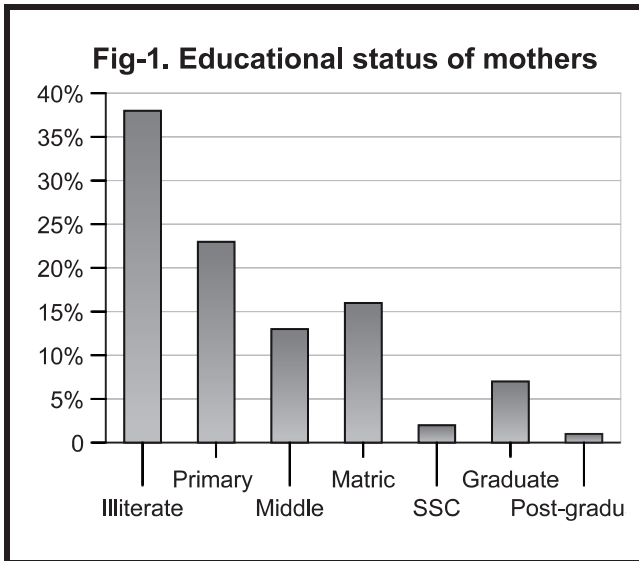
RESULTS

Beliefs and practices related to the feeding of infants were assessed by interviewing 366 mothers attending the wards and OPD. Mean age of the mothers was 31.64 years with minimum age at 18yrs and maximum at 47yrs (Table-I).

Table-I. Age Distribution of Mothers	
Statistics	Age in Years
Mean Age	31.6
Range	30
Minimum	18
Maximum	47

Out of these 38% were illiterate and 62% were educated (Figure-1). Amongst these 55% of the mothers were having family income of less than Rs. 5000 per month, 33.3% were having income between Rs. 5000 -10,000 Rs per month ,and only11.5% were earning more than Rs. 10,000 per month. 63.4% of the mothers were from rural areas and 36.6% were from urban areas. Regarding feeding beliefs 63.9% of the mothers believed that breast milk should be given as a first feed to baby while 36.1% believed in giving pre-lacteal feeds like honey, water, butter, ghutti etc. Regarding feeding practices 92.3% mothers' breast fed their babies initially, out of these 51.6% initiated breast feeding on the first day, 49.5% of the mothers started 2 to 3 days after the delivery reasons being poor milk flow, maternal illness, generalized weakness of mother because of delivery. The practice of

pre-lacteal feeding was observed in 56% of infants out of these 43% was given ghutti and 36% were given honey as first prelacteal feed.

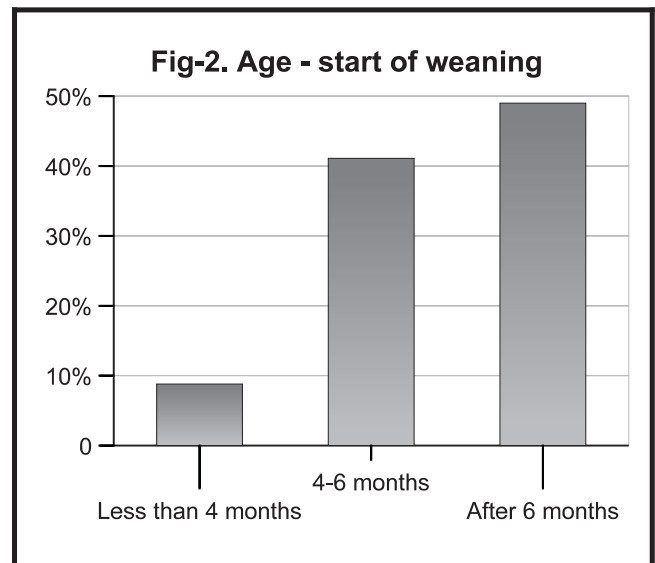


30.8% mothers were advised by their mother in laws, 13.1% by mothers and 56.1% were advised by neighbors, friends and midwives to give prelacteal feed. Regarding belief about colostrum 56.3% mothers considered it beneficial for the baby, 19.1% thought it was harmful and 6.6% considered it useless and 18% had no idea about its benefits. Out of these 92.3% mothers' 28.8% mothers introduced supplementary milk at 6-8 weeks. This figure rose to 30.2% at 4 months and 59.1% by 6 month.

The reason for supplementation was inadequate mother's milk in 50.9% cases, refusal of baby in 35.3% cases and in 10.9% subjects it was maternal illness. Early weaning before 4 months was seen in 8.8% of infants while 41.4% infants received complementary food during 4-6 months and 49% infants received complementary feeding after 6 months (Figure-2).

Home made weaning foods were given to 31.3% infants and 12.1% received ready made food. 56.6% infants received combination of both. When inquired about reason for giving ready made weaning foods 33.3% considered them easy to prepare, 40% considered them more nutritious for the baby, and 26.7% were giving due

to easy availability.



Weaning practices were influenced by our cultural beliefs and taboos as 61.7% of the mothers considered important foods like egg, meat and honey hot for the baby and are to be avoided in summers as these are important sources of protein for the baby, while fruits like banana, orange, and milk products like yogurt are considered to be cold food for the baby and are to be avoided in winters. These myths deprive infants of important nutrients which results in malnutrition and aggravate this in already malnourished infant.

DISCUSSION

Beliefs and practices related to the feeding of infants were assessed by interviewing mothers attending the OPD at Fauji Foundation Hospital Rawalpindi. Mean age of the mothers was 31.64 years. Fifty two percent (52%) of which were educated. Mean income was less than Rs.5000 (55%) because most of the people coming to this hospital belong to lower socioeconomic group.

Most of the mothers preferred breast milk to feed their babies (98.6%), one reason can be that 32% of them were illiterate and unemployed so they could attend the babies all day long and had no problem in breast feeding the baby on demand. Studies carried out in India showed that employed mothers used to breast feed their babies

on schedule⁶.

It is much readily available and affordable for the lower socioeconomic classes to breast feed their babies, as it is readily available and doesn't cost anything. Early initiation and maintenance of exclusive breast feeding are important strategies for child survival. 49.2% of mothers started breast feeding immediately after delivery, 39.6% started few hrs after the delivery and 5.64% started 2-3 days after delivery similar to the findings of a study in Lahore showing that breast feeding was initiated around 48 hours after the delivery⁹.

Colostrum was given by 61% of the mothers who thought it was beneficial for the baby. This is in contrast to the results of a research carried out in Kashmir where most of the mothers (around 86%-91%) discarded colostrum⁶. However the 10% of the mothers didn't extract the initial milk on advice of the doctor but most of the mothers still extract it. In another research carried out at the Maternal and child health dept. Lahore⁹, 65.4% of the women didn't give colostrums to their babies⁴. The high percentage among women in FFH could be the result of professional guidance and support provided at the time of antenatal checkups.

However, 19.1% thought it was harmful and 18% had no idea about its benefits or harmful effects which is because of the lack of awareness in most of our mothers from rural areas and wrong concepts given by elders of the house thus, depriving the infant from protective role of colostrum as described by Lewis Jones¹⁰. A study carried out on Asian, Indian, and American women showed that this population relied on the grandmothers for their information regarding the feeding practices¹¹.

91.8% said that the baby should be breast fed for a duration of 2yrs which is the optimal duration also given by health professionals. Regarding the practices, 91.8% of the mother's breast fed their babies initially but a sharp decline was seen at the end of 2nd month. The reason for supplementation was inadequate mother's milk in 50.9% cases, refusal of baby in 35.3% cases and in 10.9% subjects it was maternal illness.

Practice of pre-lacteal feeds was observed in 53% of the cases which included ghutti (43%) and honey (36%). Studies have shown that pre-lacteal feed interferes with the initiation and maintenance of breast feeding^{11, 12}, and is a proven cause of lactation failure (7.6%) during 1st few weeks of life where a high percentage (35%) of babies rejected milk¹³. This practice was advised by mothers and mother in laws in 45% of cases and self in 24% cases. The reason for this is traditional influences and family setup in which it is considered to be disrespectful to ignore the advice of the elderly. The results of a research based in Lahore showed that 94% of the babies were given pre lacteal feeds⁹. A research showed that even in South Africa, it was sometimes impossible for the women to ignore the advice of their ill-informed elders¹⁵.

Correct introduction of solid foods at 4-6months of age, type of food and frequency of feeding is crucial for the health and development of the infant. In this study, 42% of the mothers started weaning their babies at the age of 4-6 months, 49% started weaning after 6 months and 9% at the age of 4 months. A high percentage didn't know the importance of starting weaning at an appropriate age and had the misconception that only mother's milk is sufficient for the baby. In Pakistan complementary foods may be either part of the regular family diet or home made preparations and usually tends to be a combination of different foods.

In a study at Gilgit the mean age of complementary feeding was 9 months. Table food was introduced slowly and frequently and was not specially made for infants¹⁶. A recent report has showed that only 31% infants of 7-9 months age received solid or semi solid food with breast feeding during 1995 to 2003¹⁷. Another research carried out in South Africa showed that solid foods were introduced early (2-3 months) and a mixed family diet at 7-9 months¹⁵. This results in a large number of children suffering from malnutrition, especially protein energy malnutrition. This not only interferes with their growth and mental development but also results in manifestation of many diseases.

The problem of false beliefs in this part of the world very commonly interferes with the feeding of infants because

in many instances, more nutritious foods are available but not given to the infants in the mistaken belief that they may cause illness as shown in this study. 61.7% mothers considered high protein diet such as eggs, honey etc to be hot for the baby and 53% considered vegetables and dairy products to be cold for the baby. Thus many important food items are either excluded from the diet or provided in much lower than required amounts.

CONCLUSION

Exclusive breast-feeding is initially high but falls rapidly due to various reasons and supplemented with bottle feeding in our set up. Practices of pre-lacteal feeds and discarding colostrum are also common. Complementary feeding is also very defective in terms of timings and quantity due to lack of awareness. Traditional beliefs regarding food restrictions during infancy are also practiced. A targeted health education campaign should stress the main advantages of breast feeding. Messages should stress the protective benefits of colostrum and encourage mothers to start breast feeding immediately after birth. Potentially hazardous practices including pre lacteal feeding should be discarded.

Local cultural and traditional practices and beliefs regarding different food items should be identified. This will help to improve the food intake of infants by strengthening the useful beliefs and discontinuing harmful ones. Malnutrition can be reduced to some extent if wrong feeding beliefs and practices in the community can be removed with health education program.

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