ORIGINAL ARTICLE

EVALUATION OF NUTRITIONAL KNOWLEDGE OF MOTHERS ABOUT THEIR CHILDREN

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ABSTRACT

Background: Balanced diet is essential for normal activities of life. Children are more vulnerable to suffer from nutritional deficiency. Nutritionally educated mothers can bring up children in a healthier way. This study was conducted among mothers to assess their knowledge, ability and practice for nutritional care of their children in our setup.

Material and Methods: This cross-sectional study was conducted in Warsak colony, Peshawar during June and July, 2005. Sampling method was purposive. Thirty housewives having children were given a questionnaire and their responses recorded. The data was tabulated and analyzed statistically.

Results: The mothers studied had a mean age of 28.5 years. 23 (76.67%) of the mothers were illiterate. Regarding parity, 60% had less than 5 live children, 5 (16.6%) had 5 and 7(23.3%) more than 5 children. 80 (76.19%) infants received Gutti as first feed while colostrum was given to 25 (23.80%). 28 (93.3%) mothers did breast-feeding, 10 (33.3%) gave cow's milk along with breast milk and 11 (36.6%) formula milk along with breast milk.

Early weaning was noted in 12 (11.4%) infants. 41(39%) infants were weaned in 4-6 months and delayed weaning was noted in 52 (49.5%) infants. Boiled water was used by 14 (46.6%) mothers and filtered water by 4 (13.3%) while 12 (40%) mothers used tap water. Food was purchased by husbands in 100% cases on demand of housewives. 18 (60%) women have done child spacing.

Conclusion: Awareness of mothers regarding nutrition of their children exists but it can be further improved with basic health education, awareness and proper counseling by the health workers.

Key words: Nutrition, Child, Mother.

INTRODUCTION

Balanced diet is essential for normal activities of life. The nutritional status of a large population of Pakistan is un-satisfactory.[1] Since there is enough food available, it can be improved through proper education and awareness.[2] Good nutrition and proper feeding programs prevent illness and disabilities.[3] Malnutrition continues to be an underlying cause of morbidity and mortality in children under five years of age. Children are more vulnerable to suffer from nutritional deficiencies. Certain socio-economic, biological, environmental and behavioral factors increase the risk and need to be identified early in order to promote health and prevent disease.[4,5]

Nutritionally educated mothers can bring up their children in a healthier way. Improving breast-feeding techniques not only provide adequate nutrition to the infant but can also decrease the frequency of gastroenteritis and respiratory infections and reduce the number of infant deaths.[6] Colostrum should be given to the neonate as it is a source of proteins, antibodies and vitamins.[7]

Malnutrition and micronutrient deficiencies during the weaning period are reported from Pakistan and many other developing countries.[8] These deficiencies can be prevented by complementary feeding i.e. the addition of energy through non-human milk and semisolid or solid foods to children diet as described by WHO.[9,10]

This study was conducted among mothers to assess their knowledge, ability and practice for the nutritional care of their children in our setup.

MATERIAL AND METHODS

This was a community-based cross-sectional study conducted in Warsak colony, Peshawar during June to July, 2005. Sampling technique was purposive. Thirty married women having children were included in the study. Those having children but not caring for their nutrition were excluded from the study.

The variables in the study were; ages of mothers, education of mothers, parity, income, family size and ages of children. A questionnaire was prepared and mother's response recorded. The data was tabulated and analyzed statistically.

RESULTS

The results of the study have highlighted the abilities and practices of the housewives in the nourishment of their children. The mother's age range was 17-48, with a mean age of 28.5 years.

Assessment of educational status of mothers showed that 23 (76.67%) were illiterate and 7 (23.3%) literate (e" 5 years schooling).

Regarding parity; 18 (60%) had less than 5 live children, 5 (16.6%) had 5 children and 7 (23.3%) had more than 5 children. The average family size was 5.

The family income was less than PRS 5000/ month in 18 (60%) respondents while 12 (40%) had income greater than Rs 5000. (Table-1 & 2)

Table-1: Demographic characteristics of participating mothers.

Socio-economic Variables		No. of subjects	Percentage
Mother's age	30 & above	22	73.3%
	<30years	8	26.6%
Mother's education	Literate	7	23.3%
	Illiterate	23	76.6%
Parity	<5 children	18	60%
	5 children.	5	16.6%
	>5 children	7	23.3%
Income	<5000/month	18	60%
	>5000/month	12	40%
Family members	5 & above	16	53.3%
	<5	14	46.6%

Table-2: Gender distribution of children at each age group.

Age group	No. of boys	No. of girls
<5 Years	22	19
5-10 Years	20	16
10-14 Years	15	13

The first feed was given as gutti which may be consisting any of tea, honey or animal milk .Gutti (first feed) was given to 76.19% (80/105) of the infants; 60% (63/105) had tea while 16.6% (17/105) honey as their gutti. The natural feed should be of colostrums, which was given to only 23.8% (25/105).

Regarding the pattern of later on feeding; 28 (93.3%) mothers did breast-feeding.10 (33.3%) mothers gave cow's milk and 11(36.6%) formula milk along with breast feeding. (Figure-2)

Exclusive breast feeding was practiced in 7 (23%) cases.

Early weaning was noted in 11.4%(12/105) infants. 39%(41/105) infants were weaned in 4-6 months and delayed weaning was noted in 49.5%(52/105) infants. (Figure-3)

They were given commercially prepared ready to feed milk-based cereals. The frequency was once and not more than twice a day. Amongst mothers who gave home-made food, only 10(33.3%) mothers prepared it especially for the infant while 20(66.6%) mothers gave the child the regular family diet.

Boys were preferred on girls regarding nutrition. Housewives gave more food to their sons. The children of ages 6-14 years took the regular family diet. Fruits and juices were added in the diet according to the affordability of the family. Many women wanted to give fruits to their children but they did not have enough money to buy it.

Cleanliness is taught by Islam and was practiced by everyone .Women kept utensils clean, washed their hands before preparing meals and advised their children to keep themselves clean. Children also kept their teeth clean and washed their hands after using toilet.

When the child gets diarrhea he is taken to the doctor and is given oral re-hydration salt (ORS) as advised by the doctor.

Children under 5 years were given boiled water and semi solid foods so that they could easily digest their foods.

The view about clean water is "water which is free from any visible impurity like mud". Water was purified by boiling in 14(46.6%) or filtration in 4(13.3%) of cases. Rest of the 12(40%) people used tap water for children under 5 years.(Figure-4)

Women cook food according to the choice of their children. Most of the earned money is spent on food. Food was purchased by the husbands in 100% cases.

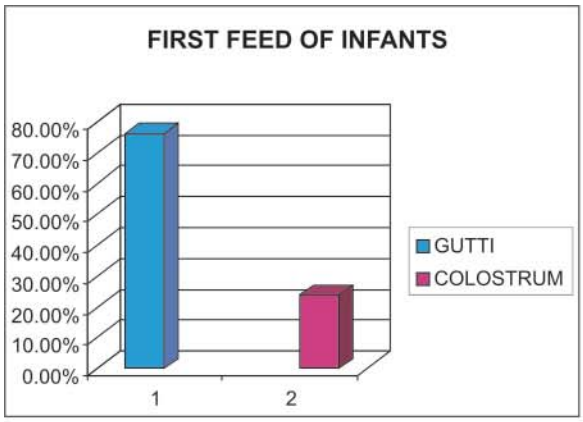

Fig. 1: First feed of infants.

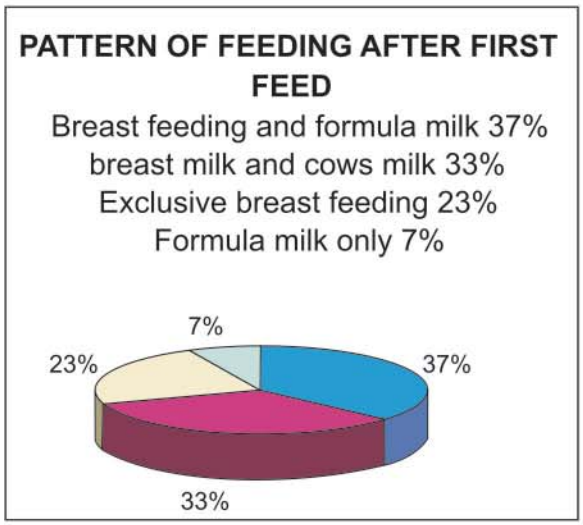

Fig. 2: Pattern of feeding.

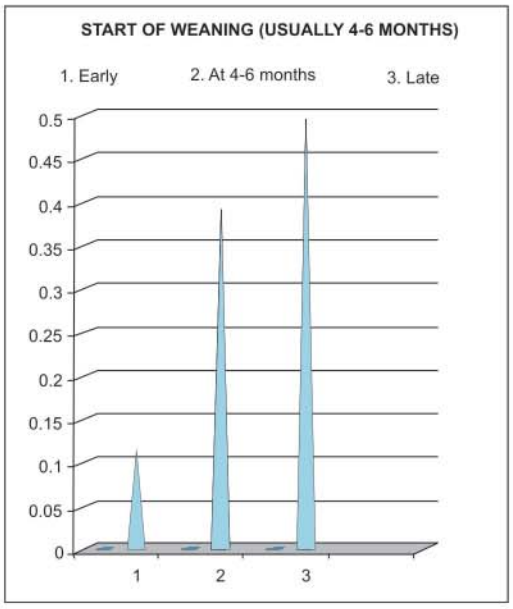

Fig. 3: Time of weaning.

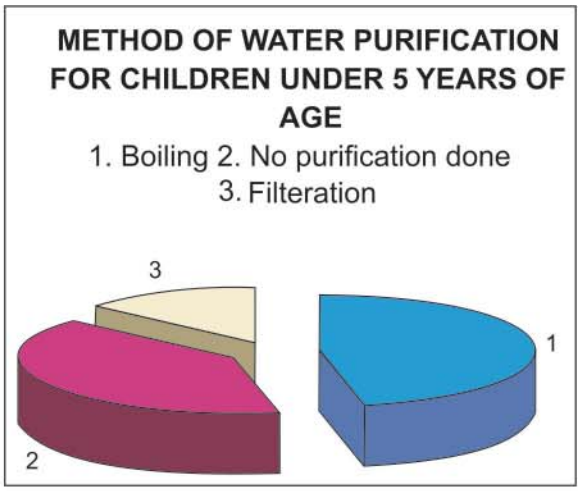

Fig. 4: Pattern of drinking water used for children.

Fig. 5a: Awareness of contraception.

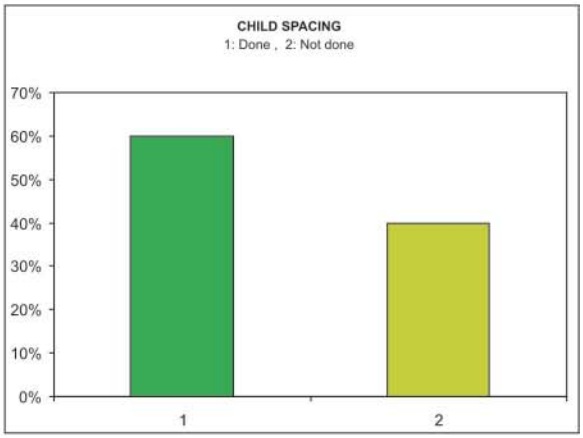

Fig. 5b: Child spacing.

Housewives believed in having small families, not more than 4 children. 18(60%) women did child spacing while 12(40%) did not. (Figure-5b)

Reasons for not using contraceptives were menstrual irregularities, repeated vaginal infections, husband's disapproval and cultural taboos. Unplanned pregnancy and desire for male issues were the main contributing factors towards large family.

DISCUSSION

The study raises the issue of poor health message communication to the general public regarding nutrition, beneficial role of breast-feeding and proper weaning to prevent malnutrition and illness in children.

Colostrum cleans the stomach and gives nourishment to the baby .It is the baby's first immunization. Gutti should not be given as it can be a source of contamination and it reduces the breast milk.

Breast milk is free from contamination and is sufficient for almost all healthy babies during the first 4-6 months. Prelacteal feeds, water, animal milk /formula milk should not be given. They not only decrease the mother's milk supply but also can be a source of infection.

In our study early weaning was noted in only 11.4% infants. Weaning at 4-6 months of age, the age proposed for introducing semisolid foods, was started in 39% infants. Delayed weaning was noted in 49.5% cases in our study. These figures are comparable to a study carried out in Lahore, Pakistan, and an earlier study from another developing country, Bangladesh.[1,3]

However, these findings are in contrast to the developed countries where the commencement of weaning begins at age less than 4 months in almost 45% of cases.[3,10] Delayed weaning is found in developed countries and almost all the children are weaned by the age of 6-7 months, when breast milk cannot alone meet the caloric requirements of a rapidly growing infant. This could be due to their higher socioeconomic and educational status.

Delay in weaning is a risk factor for nutritional rickets[12] and other micronutrient deficiency.[13] Additionally infrequent feeding, also reported in other studies in developing countries, results in less intake of food with reduced total calories per day leading to growth alteration and under nutrition.[3,14,15] Other associations with delayed weaning were noted with parity of the mother, large family size and bottle-feeding. Delayed weaning was particularly noticeable when the mother had 5 or more children. This could be due to poor time management of the mother, as they tend to neglect the nutritional needs of the young child.

The data reveals that, amongst homemade cereals, khitchri, a mixture of rice, pulses and oil was used frequently. However, this was not enriched for the child with the addition of egg, minced meat or vegetables. In contrast, dalya (wheat porridge) and suji (derivative of wheat) were less commonly used. A high percentage of infants were given the regular family food without any alteration.

Banana and mango were the only fruits given to the child. This is in contrast to the developed countries where all types of fruit are a popular infant food during weaning. In vegetables, potatoes were frequently used. Egg seldom comprised the complementary food for the child. Meat was almost never used. As these high protein foods are quite expensive in Pakistan, their lack of use could be ascribed to the low affordability of the family for this purpose.

One important finding was extensive use of tea in more than 50% of children. Tea was started as early as 1-2 months age and was given routinely to the infant at the end of one year. The hazards of tea include its content of tannic acid, which impairs iron absorption. Tea also reduces the appetite[16]; hence, its use should be strongly discouraged.

The housewives at each income level had more control on decisions directly related to food than those household decisions that could indirectly affect nutritional care potential. Decisions exclusively done by more than 23(76.6%) of housewives at all income level included "How much food should be given to various family members and who should get the best quality of food?"

Decisions exclusively made by 15-26(50-86%) of housewives at all income level included "What type of food should be cooked in the home and who should get the best quality of food?" All the other type of decisions were under-taken by 50% of the housewives at each income level.

Cleanliness is the basis of Islam, our study also showed that all the families adopted cleanliness and it was also taught by the housewives to their children so that they can keep clean and be safe from illnesses. Most of the children used toothbrush for keeping their teeth clean. Miswak was also used for keeping the teeth clean.

of living children, the number of living sons and the attitude of husbands were found to be important predictors for contraceptive use. In our study, the reason for large family size was desire for a living son and preferably two as an important socially derived determinant. Male child being a symbol of social and cultural pride is a major factor in determination of family size in Asian society.

Although the media has highlighted the importance of breast-feeding but there is a trend in mothers of breast-feeding only for 14 months.

Incorrect weaning practices include underfeeding and lack of nutritionally balanced diet,

which are the major problems especially during 2-6 months of infant's life in low socioeconomic groups.

A considerable number of women are aware of the importance of family planning. A large majority of women used some form of contraception, though most of them relied on less effective methods. Effective counseling can play an important role in motivating these women to adapt more effective contraceptive methods.

CONCLUSION

Awareness of mothers regarding nutrition of their children exists but it can be further improved with basic health education, awareness and proper counseling by the health workers.

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