

## PERCEPTIONS AND PRACTICES OF MOTHERS REGARDING CHILD FEEDING

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*Perceptions and practices of mothers regarding child feeding vary depending upon their education, socioeconomic and cultural background. The objective of current study was to see the perceptions and practices of nutrition in mothers of malnourished children. It was also aimed to ascertain malnutrition due to poverty versus ignorance. It was a retrospective study. A total 200 malnourished children from children OPD, aged 6 months to 3 years were included in this study. History was taken regarding breast feeding, weaning, ORS preparation and care of children. Physical examination was carried out to assess the nutritional status and grade of malnutrition. Weaning age at enrollment of 18 (9%) children was 4 months, 9 (4.5%) children was 5 months, 105 (52.5%) children was 6 months, 34 (17%) children was 7 months while weaning age of 34 (17%) children was 8 months. Children being inadequately fed on food were 178 (89%). Hundred percent children had history of an illness in the past. One hundred and sixty three (81.5%) of the mothers had heard about ORS but did not know how to prepare it. Only 37 (18.5%) of the mothers had full knowledge about preparation of ORS. It was concluded that poverty alone is not the only factor in causing malnutrition. Ignorance is an important factor in child malnutrition. Nutritional education should be given to the mothers to eradicate malnutrition in the children.*

**Keywords:** Feeding practices, malnutrition, breast feeding.

### INTRODUCTION

Over 6 million deaths (55% of the 12 million children under 5 years of age) each year in developing countries from infectious diseases, can be attributed to malnutrition. In the developing world, one out of every 5 persons is chronically undernourished and about 200 million children under 5 years of age suffer from protein energy malnutrition<sup>1</sup>.

Malnutrition remains a global problem affecting development, particularly that of the underprivileged and the poor. UNICEF has coined malnutrition a “silent emergency” that endangers children, women, society and the future of mankind<sup>2</sup>. Another WHO survey in Pakistan in 1984 indicated that well over 60% of the infants in the country are malnourished with grade III malnutrition about 5% in urban areas and much higher in the rural areas<sup>3</sup>. National nutrition survey in 1985-87 reported, 58% of the children are malnourished in the country. Malnutrition is a major contributory factor to mortality and morbidity.

Its close association with diarrhoea, respiratory tract infection and infectious diseases has been observed in many studies all over the world<sup>4</sup>.

There is a growing realization that good and adequate nutrition is a necessary step in improving the quality of life. The first few years of life are of paramount importance in laying the foundation of good health. The effective measures for the prevention of malnutrition and protection against infection in infancy is breast feeding and introduction of supplementary foods at proper age<sup>5</sup>. Infant feeding and weaning practices have cultural, social and economical roots making malnutrition more than a medical problem. It has been indicated in many studies all over the world that these practices are the subjects strongly influenced by customs, beliefs, superstitions, religion, cultural pattern, mother's education and socioeconomic status of the family<sup>6</sup>. Malnutrition being the cause of morbidity and mortality in under 5 years children has brought nutrition to the

forefronts of national and international concern. The impressive increase in food production by many countries since late sixties has demonstrated that supply alone is not a sufficient response. India, Pakistan, Philippines and Indonesia are sufficient in food grains but malnutrition still persists in these countries. The survey carried out by National Institute of Health Islamabad, in 1985-87, indicated that 68% of the young children in Pakistan aged 7-9 months do not consume any food apart from milk even though a variety of nutritious foods are readily available in the same household. The implication is that eradication of malnutrition depends upon elimination of nutritional ignorance, dietary superstitions and poor hygienic practices.

Majority of mothers in Pakistan and other developing countries do not have clear guidelines regarding weaning. Though food may be available to them, yet the schedule of food administration and child requirement may not be known to them. Nutritional practices vary according to their social and cultural background, tribal and religious taboos. A very small number of malnourished children can actually be attributed to poverty. There is a need to know the perceptions and practices of mothers regarding child feeding and the impact factor of these perceptions on child malnutrition.

The objective of the current study was to see the perceptions and practices of mothers about feeding their children. The study also aimed to ascertain the prevalence of malnutrition due to ignorance compared to malnutrition due to poverty.

#### PATIENTS AND METHODS

Two hundred children were enrolled from paediatric out patient department of District Headquarters Hospital, Bagh, Azad Kashmir. Informed consent was taken from the mothers.

#### Inclusion Criteria

1. Children aged 6 months to 3 years.
2. Children with malnutrition grade II and III, were classified on the basis of weight for age (modified GOMEZ)<sup>7</sup>.

#### Exclusion Criteria

Children having chronic ailments or congenital anomalies e.g. congenital heart diseases causing growth failure and inborn errors of metabolism.

#### Instruments

Our instrument was a question guide consisting of several parts which included:

1. Identification, socioeconomic and demographic profile of the patient.
2. Practices of mother on infant feeding in relation to a particular sick child.

#### Study Design

All malnourished children under 3 years of age were registered in a nutrition clinic but only those children fulfilling the inclusion criteria (as mentioned earlier) were enrolled in the study. Maternal education and socioeconomic background of the family was noted. The detailed history of child's ailment and feeding practices of mother were taken and then the child was examined thoroughly especially noting parameters of malnutrition e.g. age, height, weight, mid arm circumference, pallor, general physical and systemic examination. All the information was recorded. Statistical analysis was performed on SPSS computer software.

#### RESULTS

A total of 200 malnourished children were enrolled in the study. Out of them, 103 (51.5%) were males, whereas 97 (48.5%) were females. Age ranged between 6 months to 3 years (36 months). Mean age was 23.44 months, while median age was 24 months. Mean weight of the children was 7.74 kg, while median weight was 8 kg. Minimum weight was 4.5 kg.

One hundred and sixty four children had grade II malnutrition while 36 children had grade III malnutrition. Education of their mothers is shown in the table 1. Majority (35.5%) of the mothers

**Table 1:** Education of mothers of malnourished children.

Education	Number of Mothers	Percentage
Illiterate	71	35.5%
Primary	76	38%
Matriculate	43	21.5%
Graduation	10	5%
Total	200	100%

was in the illiterate group. Family income is shown in the table 2. As family income varied between Rs. 3000 to greater than Rs. 10000, there was no direct correlation of family income with the malnutrition. This clearly showed that lack of

maternal education regarding child's feeding and weaning played a major part in causing malnutrition. Tuberculosis contact was found in 34 (17%) of the children. Mode of feeding at the time of presentation was breast fed, breast and bottle fed, only bottle fed or feeding with cup and spoon. Relative frequency of each mode of feeding at presentation is as shown in table 3. Type of milk feeding is as shown in table 4. Giving tea to very young children was practiced in 45 (22.5%) of them.

**Table 2:** Family income group of children.

Monthly income group	Number of income group	Percentage
Up to Rs. 3000	21	10.5%
Rs. 3001-6000	74	37%
Rs. 6001-10000	91	45%
More than Rs. 10000	14	7%
Total	200	100%

**Table 3:** Mode of milk feeding.

Mode of Milk feeding	Number of children	Percentage
Breast feeding	32	16%
Breast and cup/spoon	14	7%
Breast and bottle	102	51%
Only bottle feeding	32	16%
Cup and spoon feeding	20	10%
Total	200	100%

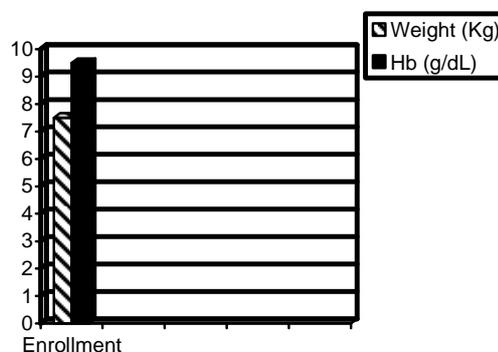
**Table 4:** Type of milk feeding practices.

Type of feeding	Number of children	Percentage
Breast	35	17.5%
Breast and buffalo	97	48.5%
Breast and goat	17	8.5%
Breast and formula	20	10.5%
Buffalo	2	1%
Goat	1	0.5%
Formula	28	14%
Total	200	100%

**Table 5:** Mothers knowledge about ORS.

Mother's knowledge about ORS	Number of mothers	Percentage
Never heard about ORS	0	0%
Heard but does not know correct preparation and use	163	81.5%
Heard and know correct use and preparation	37	18.5%
Total	200	100%

Weaning age at enrollment of 18 (9%) children was 4 months, 9 (4.5%) children was 5 months, 105 (52.5%) children was 6 months, 34 (17%) children was 7 months while weaning age of 34 (17%) children was 8 months. Children being inadequately fed on food were 178 (89%). Hundred percent children had history of an illness in the past. One hundred and sixty three (81.5%) of the mothers had full knowledge about how to prepare and use ORS as shown in table 5. All the children were immunized against polio, pertussis and tetanus. Forty four percent children presented with diarrhoea. Pallor was found in 169 (84.5%) children. Mild dehydration was present in 67 (33.5%) children, while none of the children had severe dehydration. Pneumonia was present in 87 (43.5%) children while otitis media was present in 33 (16.5%) children. Vitamin A deficiency was present in nil, while Vitamin D deficiency was present in 6 children. Skin infection was present in 97(48.5%) cases. Average weight and haemoglobin at presentation is shown in the Fig. 1.



**Fig. 1:** Comparison of average haemoglobin and weight at enrollment.

## DISCUSSION

There was little difference in the prevalence of malnutrition between the boys and girls as 51.5% were males whereas 48% were females. Major groups of children were coming from middle class families, with an average family income between Rs. 5000 to 10000. In these families, 35.5% of the mothers were illiterate, 38% mothers studied only up to the primary, 21.5% up to matric and 5% showed higher education above matric.

The high incidence of bottle feeding and mixed bottle and breast feeding in our study needs consideration of breast feeding at the national level. If breast milk is replaced by cow or buffalo's milk or replaced by more expensive formulas, the estimated national expenditure would reach in millions and trillions of rupees each year. Also, the financial drain of inadequate breast feeding has to take into account more difficult costs to estimate, which are very important cumulatively. These include the cost of treating diarrhoea and infant malnutrition, cost of an increased family planning services and particularly unnecessary expenditure in maternity units.

The mean weaning age of child was 6 months or above. When mothers were asked about the weaning foods that they were giving to their children, their adequacy and preparation, 89% of the mothers were not providing adequate or right food to their children. Moreover when they were inquired about ORS, its preparation and use, 100% of the mothers heard about it but only 18.5% knew about its correct preparation and use. The common mistakes were not using full one packet for preparation. They were wrongly using small portion of it and using prepared ORS even after 24 hours. Another important aspect visualized was that, most of the mothers were of the view that ORS cannot treat diarrhoea. This may be due to the expectations of the mothers that after the use of ORS diarrhoea would stop immediately. Mothers should be educated that ORS prevents dehydration rather than stopping it. Similar results were also found by Kundi et al<sup>8</sup>. The common determinant practices were giving diluted milk to the child, weaning the child on foods with very low calories, depriving the child of nutritious foods like egg by considering it a hot food hence not given during summer. Rice and orange juice were considered as cold foods.

Other deleterious practices were feeding liquid or solid foods that have been fecally contaminated, made with contaminated water, or inadequately cooked or stored under conditions that allow the growth of viruses, bacteria or parasites. Many of the mothers were giving nutritious foods in too

small amounts to be sufficient. Some were giving bottle feeding of starch water, sugar water or diluted milk based preparations. The primary factor in our study was lack of education and knowledge about nutrition and health and not the socioeconomic status which could make a significant impact on infant feeding and nutrition.

Deep rooted traditions passed from generations to generations thus preventing rational thinking<sup>9</sup>. Berg et al found a wide spread belief by pregnant women in Gambia, Bangladesh, India and Sri Lanka that reducing food intake would keep their babies small for an easy delivery. These women ate less and worked more during pregnancy. These traditional beliefs and practices are actually dangerous and hindered nutritional programme<sup>10</sup>.

Recognition of infection-malnutrition interactions in medical literature is well established<sup>11</sup>. There exist the synergistic and antagonistic interactions between infection and malnutritions. Synergism is frequent in developing countries where infectious diseases are highly prevalent and diets are often deficient<sup>12</sup>. In this study, out of 200 malnourished children 44% of them had diarrhoea, 48.5% had skin infections, 43.5% children had pneumonia. The major presentation in nearly all children is infection rather only malnutrition. This study strongly advocates that infection is the important factor in inducing malnutrition. High rates of infection are, in turn, determined by social, cultural and environmental conditions which favour deficient sanitation and personal hygiene<sup>13</sup>. Food withdrawal and inappropriate treatment and feeding during illness and convalescence are implications derived from cultural traditions, taboos and beliefs resulting in further worsening the situation. As the state of world's children 1984 points out; "half of all the cases of malnutrition are to be found in households where there is no absolute shortage of food".

It is **concluded** that the accepted belief that poverty is the only cause of malnutrition no longer holds true. Ignorance is an important factor in children with or without poverty. Although poverty alleviation requires lot of finances, ignorance can be very conveniently converted into awareness. Nutritional education should be given to the expectant mothers and training of growth charts, ORS preparation and proper weaning should be integral part of pre and post-natal visits.

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