



# Assessment of knowledge and practices of mothers regarding prevention of protein energy malnutrition among preschooler children residing in selected community areas of rahata taluk

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## Abstract

### Background of the study –

Children are future of society and mothers are guardian of that future, foremost, health, safety and nutrition for the young child is written on behalf of young children everywhere. Ultimately, it is the children who benefit from having mothers who understand and know how to protect and promote their safety and well-being by knowing regarding nutrition. Nutrition is the provision, to cells and organisms, of the materials necessary (in the form of food) to support life.<sup>1</sup>

**Objective-** 1.To assess Knowledge mothers of preschooler children regarding prevention of protein energy malnutrition. 2.To identify practices among mothers of preschooler children regarding prevention of protein energy malnutrition. 3.To find the association between knowledge and practices among mothers of preschooler children regarding prevention of protein energy malnutrition with selected variables.

**Methodology-** It is quantitative research approach with descriptive survey design to assess knowledge and practices among mothers of preschooler children regarding prevention of protein energy malnutrition residing in selected areas of rahata taluk

**Result-** This study shows that the mean  $\pm$  SD of score was observed Knowledge score was  $50.05 \pm 5.619$  and Practice score it was  $52.20 \pm 3.245$  the difference in knowledge and practice score however is not statistically significant ( $t = 0.072$  at  $p > 0.943$  level). It indicates that there is no difference in Knowledge and Practices among mothers of preschooler children regarding prevention of protein energy malnutrition.

**Conclusion** – It showed that the knowledge and practice among mothers of preschooler children found around 50.75 percent prevention of protein energy malnutrition. The enhancement in both knowledge and practice is very much required.

**Key ward-** protein energy malnutrition, preschooler, assessment ,knowledge ,prevention

## INTRODUCTION

Every country in the world is affected by one or more forms of malnutrition. And it is frequently a result of lack of knowledge of the mothers. In India, approximately 20% of children under the age of four suffer from severe malnutrition, while half of all the children suffer from under nutrition. Previous study shows that the gender of the child and socioeconomic factors were stronger risk factors for malnutrition. The father's occupation was a more accurate indicator for [malnutrition](#) than household income.<sup>2</sup>

The results suggest a need for intensive nutritional programs targeted toward poor female children and their mothers Protein energy malnutrition (PEM) is a major public health problem in India. This affects the child at the most crucial period of time of development, which can lead to permanent impairment in later life. PEM is measured in terms of underweight (low weight for age), stunting (low height for age) and wasting (low weight for height). The prevalence of stunting among under five is 48% and wasting is 19.8% and with an underweight prevalence of 42.5%, it is the highest in the world. Under nutrition predisposes the child to infection and complements its effect in contributing to child mortality. Lalonde model (1974) is used to look into the various determinants of PEM in under five children and its interrelation in causation of PEM.<sup>3</sup>

The determinants of PEM are broadly classified under four distinct categories: Environmental factors including the physical and social environment, behavioral factors, health-care service related and biological factors. The socio-cultural factors play an important role wherein, it affects the attitude of the care giver in feeding and care practices. Faulty feeding practice in addition to poor nutritional status of the mother further worsens the situation. The vicious cycle of poor nutritional status of the mother leading to low birth weight child further exposes the child to susceptibility to infections which aggravates the situation. However, it is seen that per capita income of the family did not have much bearing on the poor nutritional status of the child rather lack of proper health-care services adversely contributed to poor nutritional status of the child. PEM is a critical problem with many determinants playing a role in causing this vicious cycle of under nutrition.<sup>4</sup>

According to World Health Organization, protein energy malnutrition (PEM) refers to “an imbalance between the supply of protein and energy and the body's demand for them to ensure optimal growth and function”.It is a major public health problem in India. It affects particularly the preschool children (<6 years) with its dire consequences ranging from physical to cognitive growth and susceptibility to infection. This affects the child at the most crucial period of time of development which can lead to permanent impairment in later life.

UNICEF, WHO and the World Bank released an updated joint dataset on child malnutrition indicators (stunting, wasting, severe wasting, overweight and underweight) and new global and regional estimates for 2013

with 95% confidence intervals in September 2014 through an interactive dashboard, Globally, 99 million under-five year olds were underweight.<sup>5</sup>

In 2013, two thirds of malnourished lived in Asia and about one third in Africa. Almost half of children under five years of age (48 per cent) are stunted and 43 per cent are underweight, under-nutrition peaks at age 20 months. Wasting generally decreases throughout the age range. Even during the first six months of life, when most babies are breastfed, 20-30 per cent of children are undernourished. It is notable that at age 18-23 months, when many children are being weaned from breast milk, 30 per cent of children are severely stunted and one-fifth are severely underweight.<sup>6</sup>

Growth faltering normally begins around six months of age, the time when, diet based predominantly on breast milk begins to include complementary foods, which when delivered inappropriately, results in growth faltering. Infants in Delhi display this pattern of malnutrition, those aged less than six months having a low prevalence of underweight (6%), compared to a much higher prevalence of underweight (39%) with those aged 6 to 11 months.<sup>7</sup>

## RESEARCH STATEMENT

Assessment of knowledge and practices of mothers regarding prevention of protein energy malnutrition among preschooler children residing in at selected community areas of Rahata Taluk

## OBJECTIVES

1. To assess Knowledge mothers of preschooler children regarding prevention of protein energy malnutrition.
2. To identify practices among mothers of preschooler children regarding prevention of protein energy malnutrition.
3. To find the association between knowledge and practices among mothers of preschooler children regarding prevention of protein energy malnutrition with selected variables.

## RESEARCH APPROACH AND RESEARCH DESIGN-

It is quantitative research approach with descriptive survey design selected for the present study. Design was developed to enable the investigator to assess knowledge and practices among mothers of preschooler children regarding prevention of protein energy malnutrition residing in selected areas of Rahata Taluk

**Setting of the Study-** Resrach study was conducted in selected community area of Rahat Taluka at ahmendnagar district.

**Sample-** Sample of the present study was the 100 mothers with preschooler children in selected community area of Rahat Taluka at ahmendnagar district.

**Sampling Technique-** Purposive Random Sampling Technique was used for present study.

**Sample size-**sample size selected for the study 100 sample of mothers with preschooler children who fulfilled the sampling criteria and who are willing to participate in the study.

#### **Inclusive Criteria and Exclusive Criteria**

##### **Inclusive Criteria**

1. Mothers of preschooler children residing at loni ahmedanagr .
2. Mothers of preschooler children who are willing to participate in the study.
3. Mothers who know Marathi/Hindi

##### **Exclusive Criteria**

1. Mothers who are not available during the period of data collection.
2. Mothers who are not willing to participate.

##### **Tool data collection**

structured interview schedule was developed to assess the knowledge and practices of mothers of preschooler children regarding prevention of protein energy malnutrition residing in selected areas of rahata taluk.

##### **Description of tool**

#### **Section 1 Demographical Profile**

It deals with age of the mothers, religion, dietary habits of the family, type of the family, occupation of the mother, family monthly income, educational status of the mother, number of preschooler children in the family, immunization status of the preschooler children.

#### **Section 2 Knowledge Aspect**

It existing knowledge of mothers of preschooler children regarding prevention of protein energy malnutrition. This covers meaning, definition of nutrition, importance of nutrition, meaning of protein energy malnutrition, causes of protein energy malnutrition, signs and symptoms of protein energy malnutrition and prevention of protein energy malnutrition.

#### **Section 3 Practice Aspect**

It consists of 15 items to assess the practice and knowlged related i.e. Breast Feeding Practices, Weaning Practices, Dietary Practices and Management of Diarrhea.

## **Standardization of tool and technique**

### **Reliability**

Reliability of the tool was established by using split half method with Spearman-Brown Prophecy Formula methods. The tool was used on the sample and again the same tool was given after one day to test its reliability. The instrument was found to be reliable with reliability co-efficient being knowledge is 0.90 and practice is 0.97.

### **Pilot study**

Pilot study was conducted with 10 mothers who have preschooler children, in selected community area of shrirampur .

### **Methods of data collection**

A structured interview schedule was used to collect data from research samples based on the study objectives

### **Plan for data analysis**

The collected data analyzed by applying descriptive and inferential statistics method

### **Descriptive statistics**

Mean, standard deviations and mean percentage(%) was used.

## **Result**

### **Assessment of demographic characteristics of preschooler mothers**

Age wise distribution of preschooler mothers majority of 79% of mothers were in the age group of 19-30 years, followed by 12% of mothers were in the age group of 18 and below and only 9 % of mothers were in the age group of 31-45years. According to type of family majority of 70% of mothers belonged to Nuclear Family followed by 27% of mothers belonged to Joint Family. Data shows that majority of 75% of mothers were house wives, followed by 10% mothers were self employed and only 18% of mothers were Daily wages. The monthly income of the family, majority 40 % of mothers had income of Rs. 1001-3000, followed by 42% of mothers had income of Rs. 3001 – 5000, 8 percent of mothers had income less than Rs. 5000 and only 2 % of mothers had income less than Rs. 1000. the majority of 30% of mothers studied up to higher primary school, followed by 38% of mothers studied up to higher secondary school, 22% of mothers were illiterate, further, 19 % of mothers studied up to Primary School and only 10% of mothers studied up to post graduate. it reveals that majority of 50% of mothers obtained information regarding prevention of protein energy malnutrition from health personnel and television, followed by 25% of mothers obtained health information from health personnel, news paper and TV, further 15% percent of mothers got information from health personnel, 6% of mothers received health

information from health personnel, relatives and TV, and only 4 % mothers obtained information from health personnel and relatives.

### **Item wise knowledge score of mothers regarding prevention of protein energy malnutrition**

The item wise mean knowledge scores mothers regarding prevention of protein energy malnutrition. 60 % of mothers were aware of the benefit of colostrum, followed by 55% of the mothers who knew meaning of weaning and 60% of the mothers were aware of the measures of prevention of PEM and major causes of PEM. It reveals that 65% of mothers knew the main sources of protein, importance of pulses and cereals in children and duration of exclusive Breast Feeding. demonstrates 58% of the mothers were aware of meaning of malnutrition, and factors which influence PEM, followed by 50% percent of mothers who knew the causes of diarrhoea. in percent wise 46 % of mothers knew the meaning of colostrum, followed by 40 % of mother had knowledge of importance of vegetables for children and the normal daily requirement of protein. and 26 % of mother knew the common food for health of the child and only 24 percent of mothers who knew the time of initiation of solid food to their children

### **Area wise knowledge scores of mothers among children regarding prevention of protein energy malnutrition**

Area wise knowledge scores of mothers shows that highest 60.5 % of knowledge score in the area of causes of Prevention of protein energy malnutrition, followed by 50% of knowledge score in the area of meaning, definition and importance of nutrition and Prevention of PEM. Further knowledge score was 40% in the signs and symptoms of PEM. However an over all mean percent of knowledge score over all mean percent of knowledge score was found to be 52% .

### **Item wise practice scores mothers regarding prevention of protein energy malnutrition**

Majority,70% of the mothers start solid food at the right age of 8 to 9 months, followed by 69 %of mothers had right practice of introduction of supplementary food in addition of breast feeding at six months age of child and 64 % of mothers had the good practice of feeding breast milk as first feed to new born immediately after birth and correct duration of breast feeding with weaning, followed by 59% of mothers who practiced giving two cups of milk per day to children. 46 % of mothers had the good practice of starting of egg preparation at the age of six and seven months of age, followed by 54 % of mothers practicing the right time for giving pulses and cereals to child at six and seven months of age. It shows that 50% of the respondents had the right practice of cooking cereals in small utensils with minimum water, followed by 40 % of the mothers prepare home made ORS when the baby had diarrhea. Further 31% of the mothers introduced green leafy vegetables for the child between 6 to 7 months of life and 30% of the mothers manage diarrhea in children at home, followed by 25% of mothers giving one egg to their children everyday and right practice of introducing green leafy vegetables to the child at 6 to 7 months of life

### **Area wise practice score of mothers among children regarding prevention of protein energy malnutrition**

Findings shows that majority 70% of the mother had right practices of breast feeding, followed by 65% of the mothers had right weaning practices. followed by 43.5% of the knew dietary practices, followed by 32% of mothers knew the management of diarrhea.

### **Finding related association between knowledge and practice score with selected variables**

There were 10% in the age group below 18 years, have highest score 61.65 % than the other age group. where as age group between 19-30 years their practice score is highest 55% than the other groups. The mean score of knowledge 58.60 % and practice 58 % of joint family was found higher than the nuclear family 49.60 % and 51.5 % respectively. mothers occupation on knowledge was 58% and practice score was 57.2% of house wives higher than the self employed and daily wages mothers (31.65 & 42.8 ) and (36.2 & 45.6) respectively. in income of parent mean % shows that of knowledge (45.8%) practice (26.6%) score was found to be lower than the other two group (Rs 1001 – 3000, 3001 – 5000 and  $\geq$ Rs. 5001). majority, 20 % were illiterate/No formal education, their mean percent of knowledge score was lower (19.5%) than the knowledge score of primary, higher primary, higher secondary and post graduate level of education. majority, 53 mothers obtained information from health personnel and tv. their mean knowledge (50.15%) and practice (50.2%) score was found to be lower than the mothers who obtained information from other groups,

### **Association between knowledge and practice score**

study shows that the mean  $\pm$  sd of score was observed knowledge score was  $52.09 \pm 5.620$  and practice score was  $53.28 \pm 3.295$ . the difference in knowledge and practice score however is not statistically significant ( $t=0.072$  at  $p>0.943$  level). it indicates that there is no difference in knowledge and practices among mothers of preschooler children regarding prevention of protein energy malnutrition.

### **Conclusion –**

The findings shows that knowledge and practices of mothers regarding prevention of protein energy malnutrition among preschooler children found around 52.79%. The enhancement in both knowledge and practice is very much required .

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