

KNOWLEDGE REGARDING PREVENTION OF PROTEIN ENERGY MALNUTRITION AMONG UNDER FIVE MOTHERS IN SELECTED HOSPITAL IN MEERUT WITH A VIEW TO DEVELOP HEALTH EDUCATION MODULE

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Abstract: Protein Energy Malnutrition (PEM) is widely prevalent form of malnutrition among under five children and is still the major problem in our country especially in urban slums. **Objectives:** A study was conducted to assess the knowledge among mothers of under five children regarding prevention of protein energy malnutrition view to develop health education module. **Method:** Descriptive survey approach was adopted to collect data. A structured interview schedule was prepared and administered to 50 mothers of under five children based on purposive sampling technique at the CSSH hospitals of Meerut (UP). **Result:** Majority of the subjects were in the age group of 27- 38 years and most of them were Hindus. Most of the subjects were housewives and had no formal studies with them. Highest percentage of subjects had a family income of less than Rs.3000 per month. From samples 78% were having only moderate knowledge about prevention of protein energy malnutrition and the rest had inadequate and adequate knowledge score. The source of information had influenced on knowledge score of mother. About 46% subject were illiterate with no formal education, **Conclusion:** It concluded that there was moderate knowledge among the mothers of under five children regarding prevention of PEM. In the upcoming research the researchers can also include the post test in the further studies which has not been included in this research.

Key Words: Protein energy malnutrition; Under five Mothers; health education module (SIM), CSSH (Chatrapati Shivaji Subharti Hospital).

1. INTRODUCTION:

Children are the integral part in the world. Everywhere the development and well-being of children captures public attention. The interest of scientist and concerns of public policy makers are to develop children are active participants and strong pillars of society.¹ Healthy children are a matter of pride for the family, the community and the country. They evolve to become healthy adults and effectively participate in national and developmental programmes.²

Overall global progress in reducing Protein Energy Malnutrition among infants and young children is exceedingly slow and completely inadequate for even approaching the year 2000 goal of a 50 % reduction in 1990 prevalence levels, currently an estimated 167.90 million children under 5 years of age i.e., 27.41 of the world children in this group are still malnourished.³

For centuries, India has been a country which faced a number of natural calamities and epidemics that manifested into a series of health problems for the country. India's children still languish in malnutrition in spite of lot of progress in terms of food production procurement and food security.⁴

Food should be provided in quantities that balance energy and nutrients with the children's small appetites. Children typically grow taller by 2 or 3 inches and heavier by 5 lb or so each year from age 1 year to adolescence. Total energy needs increase slightly with age, although energy needs per kilogram of body weight actually it declines gradually during childhood. Energy requirements are also influenced by activity level. Growth and activity patterns vary widely among children. The complexity of these factors makes it especially challenging to plan their diets so as to accommodate children's small appetites, avoid excess fat and sugar, and still supply adequate amounts of energy and nutrients to keep children free from hunger and promote their proper growth and health. Food guidance systems that recommend minimum amount and age-appropriate portion sizes are available to help caregivers plan menus to balance energy and nutrients with children's growth and activity patterns. By ensuring that children are provided with adequate amount and combinations of food during their day in care, child-care programs can make substantial contributions to prevent hunger and increase nutrition security for the nation's young children. The rapid growth of population leads to gap between food production and food consumption which causes malnutrition. General ignorance about the importance of balanced diet and poverty are the chief causes of malnutrition in the developing world.⁵

Mother's education can generate different types of intra household effects and thereby reducing the risk of nutritional deficiency like Protein Energy Malnutrition. The effects which bring through mothers education were:

- Improved health and nutrition knowledge.
- Psychological changes and improved nutritional behaviour.
- Shift of power relations within the household in favour of better nutrition which includes breast feeding, weaning practices and child feeding and pregnancy diets may lead to more effective dietary behaviour on the part of mothers who manage food resources within the household.⁶

2. NEED FOR THE STUDY:

The prevalence of protein Energy Malnutrition among children in south Asia is the highest in the world. It is almost double the prevalence in sub Saharan Africa. This high prevalence together with the large population of the region explain why more than half of all malnourished children live in south Asia, 101 million out of 184 million. On average there has been a small decrease in the prevalence of underweight children in south Asia during the last fifteen years. This decrease however is smaller than the increase in the child population.⁷

In India the people are affected with malnutrition and it is found to be one of the greatest health problems which is being faced by our community today. It is reported that 60-70% of young children today have nutritional deficiency. It is recognized that people in India take diet with minimum proteins requirement and less in sufficient calories. A child becomes malnourished because of illness in combination with inadequate food intake. Malnutrition contributes to over 6 million death of children each year, 55% of the death among children are associated with factors such as social economic and moral aspects the vulnerable period is 4-6 years of life 40% of this age group consume adequate diet. It had been estimated there are about 45 million under nourished children in our country which can lead to nutritional anaemia, and other nutritional deficiencies.⁸

3. STATEMENT OF THE PROBLEM:

“A descriptive study to assess the knowledge regarding prevention of protein energy malnutrition among Under five Mothers in selected Hospital in Meerut with a view to develop health education module”.

4. OBJECTIVES OF THE STUDY:

The objectives of the study are:

- To assess the knowledge regarding prevention of protein energy malnutrition among under five mothers in selected hospital, Meerut.
- To find out association between knowledge of mothers of under five children with selected demographic variables.
- To develop health education module regarding protein energy malnutrition.

5. INCLUSION CRITERIA:

- Mothers of under five children in selected hospital Meerut.
- Mothers of under five children who are available during period of data collection.
- Mothers of under five children who are willing to participate.

6. EXCLUSION CRITERIA:

- Mothers of children more than five years.
- Mothers who are not available and are not present during the study.
- Mothers of under five children who are not willing to participate.

7. LIMITATIONS OF THE STUDY:

- The study is limited to only those mothers who have under five children.
- It is further limited to mothers who reside at Meerut.
- The study is limited to mothers who can understand Hindi.
- The study is limited to mothers who are willing to participate in the study.

8. RESEARCH METHODOLOGY:

Research approach: Descriptive research approach

Research design: Non-experimental descriptive design

Setting of the study: Chatrapati Shivaji subharti Hospital, Meerut, Uttar Pradesh.

Target population: Mothers of under five children at Chhatrapati Shivaji subharti Hospital, Meerut, U.P.

Sample size: 50 under five mothers who were available at Chhatrapati Shivaji subharti Hospital, Meerut, U.P.

Sampling technique: Purposive sampling.

9. RESULTS AND DISCUSSION:

The analysis of the data is organized and presented under following sections.

Section I: The findings related to the demographic characteristics of the respondents are discussed:

Majority of subjects were in the age 27 Years or less, and the rest 8 were in the age group of 28- 37 years. 36 subjects were Hindu, and the rest 14 were Muslims. 23 subjects were illiterate, 18 have taken just primary education and the rest 9 were only educated to secondary level and above. 49 subjects were housewife's, and rest 1 mother was an employ only. 43 subjects had three or less children, and the rest 7 had four children. 12 subjects were living in urban areas and rest 38 were from rural areas. 37 subjects have collected their information from family and friends and 11 mothers from mass media and the rest 2 had from other sources.

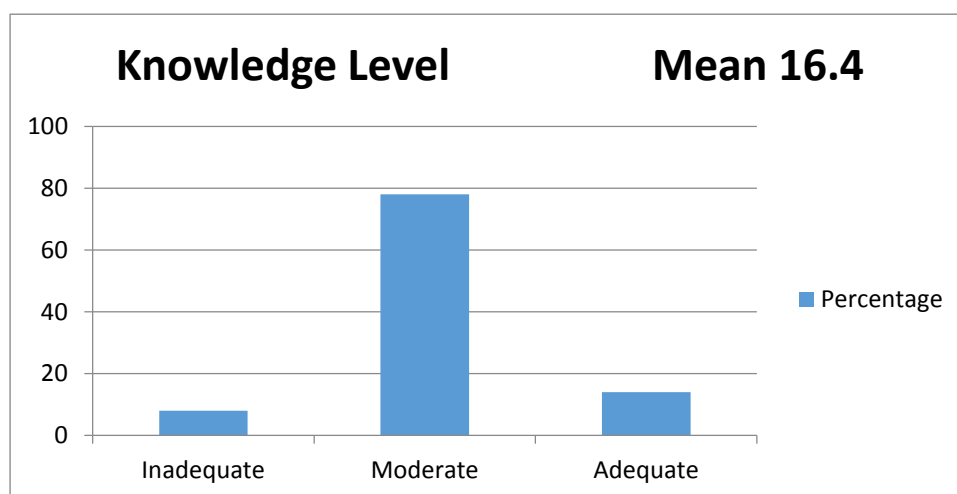
Section II: knowledge levels of mothers of under five children regarding prevention of protein energy malnutrition.

Knowledge level	Score	Frequency	Percentage
Inadequate	0 – 10	4	8
Moderate	11 – 20	39	78
Adequate	21 – 30	7	14

MEAN VALUE : 16.4

STANDARD DEVIATION (SD) : 4.72

Table I: Frequency and percentage distribution of under-five mothers based on knowledge level



Majority of 75% of subjects were having moderate knowledge regarding prevention protein energy malnutrition and only 8% of subjects were found with inadequate knowledge regarding prevention of protein energy malnutrition. The mean knowledge score was 16.4 and a standard deviation of 4.72, which means there is a need of enhancement of knowledge of mothers regarding prevention of protein energy malnutrition.

The study was undertaken to assess the impact of drought on the nutritional status of children aged 0-5 years from a rural population in a desert area facing drought areas of western Rajasthan. The results revealed growth retardation. Stunting was observed in 53% of children and underweight in 60%. Due to inadequate consumption of daily food the children were suffering from wasting and protein energy malnutrition. Efforts should be made to incorporate measures, such as ensuring the supply of adequate energy and protein to all age groups children, into ongoing nutrition programmes in order to improve the food security of local inhabitants in this area.

Section III: The finding related to association between demographic variables and knowledge scores of under-five mothers regarding prevention of protein energy malnutrition are discussed:

The association between knowledge score and age is not found significant (χ^2 calculated value was 1.9118 while χ^2 table value was 9.778). Similarly other demographic variables such as Religion, Education, Occupation, No. of children, Residential Area, Food Habits, Source of information have calculated χ^2 values as 1.6226, 5.3636, 7.2348, 2.3264, 5.6843, 9.2117, 5.558 respectively, and also found there was no association with knowledge of the mothers regarding prevention of protein energy malnutrition but Monthly Income of the family has χ^2 value of 19.7300 i.e. >9.778 and shows significant and also the Family type with χ^2 value of 12.2 is showing significant association on knowledge score of under five mothers.

In the one of the recent cross sectional study the research was conducted to assess the effects of mothers nutritional knowledge and literacy status on protein energy malnutrition in rural areas of Panchamahab Dist. of

Gujarat 2723 mothers were selected by purposive sampling and used questionnaire to collect data, Results of study showed that higher percentage of children whose mothers were illiterates (20.9%) had mild grade of malnutrition than children of literate mothers (15.2%). Study evidenced that if mothers have sufficient nutritional knowledge, it is effective to improve the nutritional status and aids in prevention of protein energy malnutrition.

The above mentioned studies clearly shows that educational programmes of various kind (Informational Booklet, psycho-educational, Self Instructional Module, Planned teaching programmes, health education) are effective measures in improving the knowledge of caregivers as well as patients. Health professional should consider it as their prime duty to educate the patient as well as the caregivers regarding care of patients at home. Nurses are the backbone of any health care organization. Nurses play an important role in this educational programme as they have more contact with the patients and family members compared to other health professionals. Most cases of malnutrition in India constitute protein energy malnutrition, and first and foremost thing to improve and prevent any disease is providing education and awareness towards mother.

According to the latest National Family Health survey, the Maternal Mortality Ratio in Karnataka is 213 and Infant Mortality Ratio is 45 for every 1,000 live births. The Human Development Index 2011 released by the United Nations Development Programme ranks Karnataka among the west performers with a Hunger Index of 23.7, nowhere close to the best performing states, Punjab, with a Hunger Index of 13.63. Kerala 17.6 Tamil Nadu 20.8 and Andhra Pradesh 19.5 fare better. Rural Development is perplexed to find the rate of malnourished so high in pockets of growth like Gujarat and Karnataka.

Another study was conducted to assess the effectiveness of IEC strategy in knowledge on PEM among mothers of under five children at selected Village in Kancheepuram District, South India. Most samples of the study were in the age group between 18 to 24 years. Majority of the mother were laborers having an average monthly income between Rs. 2000 to 3000. The effect of IEC strategy was assessed in terms of gained knowledge on PEM. The mean pretest knowledge score was 6.4 with S.D of 2.79 and the mean posttest knowledge score was 19.2 with S.D of 1.95. Hence the nutrition exhibition was found to be effective with paired T-value at $P < 0.001$ level. There is a significant association between the knowledge on PEM with age and educational status among mothers of under five children at $P < 0.05$ level.⁹

10. CONCLUSION:

In India PEM is associated with web of factors including insufficient food intake, low socio economic status, poor dietary habits, faulty weaning practices, frequent infections, ignorance, family size etc. Gross malnutrition is said to kill around 5, 00,000 of our infants and children every year (WHO 2007). In the present study majority of 75% of subjects were having moderate knowledge regarding prevention protein energy malnutrition and only 8% of subjects were found with inadequate knowledge regarding prevention of protein energy malnutrition. The knowledge of the subject was influenced by source of information. So, the researcher conclude that there is need to enhance knowledge regarding prevention of protein energy malnutrition.

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