Prevalence of Protein Energy Malnutrition among underfive children and the effectiveness of structured nursing intervention on nutritional status of children, knowledge and practice of mothers regarding the prevention and management of Protein Energy Malnutrition in selected coastal villages of Kerala.

Ms. Lija R Nath

ABSTRACT

Protein Energy Malnutrition and growth retardation are probably the most wide spread nutritional problem among the underfive children of developing countries including India. It is not only an important cause of childhood morbidity and mortality, but leads also to permanent impairment of physical and possibly, of mental growth of those who survive. Majority of the children with mild and moderate malnutrition who are the future victims of severe malnutrition are hidden in the community just like an iceberg. Educational interventions involving parents or other family members who might play a role in the care behavior and care resources are important in feeding the children energy and protein enriched, hygienic, simple and cheap foods which could improve child growth even under conditions of poverty.

Objective: The present study was carried out to determine the prevalence of Protein Energy Malnutrition and factors contributing to malnutrition among underfive children and to find out effectiveness of structured nursing intervention on nutritional status of underfive children, knowledge and practice of mothers regarding prevention and management of malnutrition in selected coastal villages of Kerala.

Material and methods: The present study was conducted in two phases. The research design adopted for phase I was descriptive study design and for phase II was pre experimental. Phase I study was carried out among 563 underfive children who were chosen by multi stage cluster sampling technique. Socio demographic characteristics, factors contributing to malnutrition were assessed using structured questionnaire. Anthropometric parameters (Weight, MUAC) were checked and clinical profile of malnutrition was assessed using physical examination checklist. In Phase II samples consisted of all the 122 underfive children who were identified with different degrees of malnutrition in phase I and their mothers. Structured self reported knowledge questionnaire and Practice rating scale were used to measure the knowledge and practice of mothers related to the prevention and management of malnutrition. Weight of the child was measured using calibrated weighing machine. All the measurements were carried out once before the Structured Nursing Intervention and three times after the intervention.
Results: Prevalence of malnutrition among underfive children based on IAP classification was 21.6%. Based on Arnold’s Classification only 7.3% of underfive children had mild to moderate malnutrition. Results of multivariate logistic regression analysis revealed that low birth-weight (p-value <0.001), higher birth order, health status of mother (p-value < 0.05), history of illness in the last 6 months and history of hospitalization in last one year (p-value <0.001) were the factors found to have significantly associated with malnutrition among underfive children. Majority of mothers (64.8%) had poor level of knowledge and 53.3% of mothers had reported poor practice. Structured Nursing Intervention was found to be effective in improving the knowledge and practice of mothers related to prevention and management of Protein Energy Malnutrition among underfive children (p < 0.001). Percentage of grade I malnutrition reduced from 83.6% in pre test to 63.69% in post test III. Z test was carried out and it was concluded that Structured Nursing Intervention had significant influence on the nutritional status of underfive children (Z = 3.33**, p value <0.01). Chi square test revealed statistically significant association between the degree of malnutrition and knowledge (χ²= 9.29**, p<0.01) and practice of mothers (χ²= 7.03*, p<0.05). Statistically significant association was found between the degree of malnutrition and selected socio demographic variables such as type of house (p < 0.01), number of children (p<0.01), and environmental sanitation (p< 0.05). There was positive correlation between pre test knowledge and practice of mothers (r=0.82, p < 0.001).

Key words: Prevalence, Protein Energy Malnutrition, Nutritional status, Structured Nursing Intervention, Knowledge, Practice, Underfive children.