A Study to Assess the Effectiveness of Structured Teaching Programe on Knowledge Regarding Protein Energy Malnutrition [PEM] among the Mother’s of Under Five Children at Selected Rural Area in Anand District

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Abstract:

Statement Problem:
“A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Protein Energy Malnutrition [PEM] Among The Mother’s Of Under Five Children At Selected Rural Area In Anand District.’’

Objectives of the Study:
1. To assess pre existing knowledge of selected Mother’s Of Under Five Children regarding Protein Energy Malnutrition.
2. To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding Protein Energy Malnutrition.
3. To find out an association between pre-test knowledge scores with their selected demographic variables.

Operational Definition:
A] Effectiveness: “In this study the effectiveness means to the knowledge gain by the mother’s after giving knowledge through structured teaching program regarding the Protein Energy Malnutrition.”

B] Structured Teaching Program: “Structured teaching program refers to self contained written material which be used to teach the mother’s.”

C] Protein Energy Malnutrition: “In this study it means, Lack of proper nutrition, caused by not having enough to eat, not eating enough of the right things, or being unable to use the food that one does eat.”

D] ASSESS: “Measure the knowledge regarding Protein Energy Malnutrition among The Mother’s of fewer than Five Children”

F] Knowledge: “In this study knowledge means the information and understanding , of the mother’s regarding PEM.”

Hypothesis:

H1:- There will be a significant difference between pretest and post test knowledge score among the mother’s of under five children.
H0:- There will be a significant association between the pre-test knowledge score with their selected demographic variables.

Assumption:

(1) Mothers: May have some knowledge regarding PEM.

(2) Structured Teaching Program: On prevention of PEM help in improving their Knowledge there by it reduced complication.

Introduction:

Williams first used the term in 1933, and it refers to an inadequate protein intake with reasonable calories intake oedema is characteristic of kwashiorkor but is absent in marasmus. [1] Protein energy malnutrition or protein calorie malnutrition refers to a form of malnutrition where there is inadequate calorie or protein intake. [2] The term marasmus derived from the Greek language “Marasmus” which means withering or wasting. Marasmus involving inadequate intake of protein and calories and is characterized by emaciation. The term kwashiorkor is taken from the “Ga” language of “Ghana” and it means that “The sickness of the weaning”. [1] Protein energy malnutrition divided in to mainly four types:

1) Kwashiorkor
2. Marasmus
3) M) arasmic kwashiorkor
4) Nutritional dwarfing

But mainly in India and worldwide the kwashiorkor and marasmus are most common and major type of PEM. [7] PEM is due to inadequate of food in quality and quantity and infection like Diarrhea, measles and respiratory and worm infestation. First indication of PEM is underweight for age maintains growth chart (road to health) is the most practical method to detect PEM. [10] Kwashiorkor is caused by deficiency of protein in diet. Improvement signs & symptoms are growth failure, edema, diarrhea, anemia & changes in skin integrity & changes of hair and hair color. [11]

Need For the Study:

The World Bank estimates that India is a rank in second in the world of the number of the children suffering from PEM, after Bangladesh in 1998 where 47% of child exhibit a degree of PEM. The prevalence of underweight in among the highest in the world. [13] Protein energy maln Marasmus most commonly occurs in children under 5 years. This period is characterized by increased energy requirement and increased susceptibility to viral and bacterial infections. Weaning is not sudden withdrawal of child from the breast it is gradual process starting around the age of end of the fourth months because the mother milk alone is not sufficient to sustain growth beyond six months. It should be supplemented by suitable foods rich in protein and other nutrients. It continues till the child is completely of the feed breast. Weaning is often complicated by geography, economy, hygienic public health culture and dietetics. It can be ineffective when the food introduced provide inadequate nutrients when the food and water are contaminated when the access to health care is in adequate, and/or when the patient cannot assess or purchase proper Nourishment. [1] The basic etiological factors are inadequate diet both in quantity and quality. This is primarily due to poverty, ignorance, infection and parasitic diseases, notably diarrhea, respiratory infections and parasitic disease. Infection contributing to malnutrition and malnutrition contributing to infection by weakening the child other factors are poor environmental condition, large family size, poor maternal health failure of lactation, premature termination of breast feeding, cultural practices, immature immune systems; dependence on others, ineffective weaning child who is physically weak will be mentally weak and cannot be expected to take full advantage of schooling studies in India, nutrition also involves an inadequate intake of many essential nutrients low serum levels of zinc have been implicated as the cause of skin ulceration in many patients. In 1979 study of 42 children with Marasmus investigations found that only those children with low serum levels of zinc developed skin ulceration. Serum levels of zinc correlated closely with the presence of edema stunting of growth and severe wasting.
Review of Literature:

Section-I: Review of literature related to knowledge among mother’s of under five children regarding protein energy malnutrition.

Section-II: Review Of literature related to protein energy malnutrition in relation with socio-demographic variables and socio economic factor.

Section-III: Review Of literature related to knowledge and practice on dietary management for protein energy malnutrition.

Section-IV : Review Of literature related to Effectiveness of Structured Teaching Programme on Protein Energy Malnutrition.

[Section I]

Review Of Literature Related To Pem:

Review of literature is a key step in research process. The typical purpose of reviewing the existing literature is to generate research question to identify what is not known about the topic. The major goal of the review of literature is to develop strong knowledge based to carry out research and other non research scholarly activities.\[16\]

A cross-sectional study conducted on Evaluation of nutritional knowledge of thirty mothers (house wives) about their children in Pakistan revealed that 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. 80(76.19%) infants received Gutti as first feed while colostrums 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.\[2\]

[Section-II]

Studies Related To Protein Energy Malnutrition In Relation With Socio-Demographic Variables And Socio Economic Factor:

A study was conducted on protein energy malnutrition (PEM) is a common problem worldwide and occurs in both developing and industrialized nations. In the developing world, it is frequently a result of socioeconomic, political, or environmental factors. In contrast, protein energy malnutrition in the developed world usually occurs in the context of chronic disease, Recognition, prompt management, and robust follow up are critical for best outcomes in preventing and treating. Early recognition, prompt management and robust follow up are critical for best outcomes in preventinand treating PEM.\[2]
Section-Iii

Studies Related To Knowledge and Practice On Diet For Protein-Energy Malnutrition

A study was conducted on case-control method with a food frequency questionnaire was used to assess the habitual diet. Children with severe childhood malnutrition presenting to the central hospital in Blantyre, Malawi during a 3-month period in 2001 were eligible to participate. The food frequency questionnaire collected data about foods consumed by siblings <60 months of age in the home. It was assumed that the habitual diet of all siblings 1-5 years old in the same home was similar. Dietary diversity was assessed using a validated method, with scores that ranged from 0 to 7. Regression modeling was used to control for demographic and disease covariates. A total of 145 children with kwashiorkor and 46 with marasmus were enrolled. Children with kwashiorkor consumed less egg and tomato than those with marasmus: 17 (15) vs 24 (31) servings per month for egg, mean (SD), P < 0.01 and 27 (17) vs. 32 (19) servings per month for tomato, P < 0.05. Children with kwashiorkor had a similar dietary diversity score as those with marasmus, 5.06 (0.99) vs. 5.02 (1.10), mean (SD). Further research is needed to determine what role consumption of egg and tomato may play in the development of kwashiorkor. An improvement in social infrastructure, better maternal education and nutrition are needed to prevent the child malnutrition issue.40

Section-Iv

Review Of Literature Related To Effectiveness Of STP On Pem:

A study was conducted on Current guidelines for the management of severe malnutrition is mainly based on new concepts regarding the causes of malnutrition and on advances in our knowledge of the physiological roles of micronutrients. Severely malnourished children require special micronutrients; a mineral-vitamin mix is added to the milk-based formula diets, which are specially designed for the initial treatment and the rehabilitation phase. To further improve nutritional rehabilitation and reduce cases of relapse, ‘ready-to-use therapeutic food’ and ‘ready-to-eat nutritious supplements’ with relatively low protein (10% protein calories) and high fat content (54-59% lipid calories) have been developed. Although current dietary recommendations do not differentiate between edematous and nonoedematous forms of malnutrition or between adults and children, there are indications that further clarification is still needed for applying dietary measures for specific groups.4

Research Methodology:

Methodology of research indicates the general pattern for organizing the procedure for the empirical study together with the method of obtaining valid and reliable data for problem under investigation. [45]

Research approach: Research approach is systemic, objective method of discovery with empirical evidence & rigorous control. The research approach spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. The control is achieved by holding conditions constant & varying only the phenomenon under study. [45]

Research design: Research design is the “binding force” that holds all of the elements in a research together. The research design is the overall plan for obtaining answers to the questions being studied and for handling the difficulties encountered during research process. [45]

Variables: Variables are the conditions or characteristics that the experimenter manipulates, controls or observes. Variables can be changed and this change is studied. [45]

Polit:

The presumed cause is referred to as the independent variable, and the presumed effect is referred to as the dependent variable. Based on the objectives of the study the major variables identified were as follows:

Population: According to Polit and Hungler. A population is the aggregate of cases that meet a designated set of criteria that the researcher is interested in studying.”

The sample for the present study comprises of 60 mothers’ of under five children in selected rural area in Anand district and the mother’s of under five children were from 6 villages: Bharoda, Shili, Ratanpura, Khabhollaj, Sarsa, and Kunjрав

Setting of the Study: “Setting” refers to the area where the study is conducted. Setting is a physical location and condition in which data collection takes place.

Polit and hunger 1999:
Sampling Technique: Sample is the subset of the units that compose the population. Sample is used in research when it is not feasible to study the whole population from which it is drawn. The process of sampling is collection. They were selected by a purposive sampling technique.

Sample Size: Sample consists of the subjects of the population selected to participate in research study. Sampling refers to the process of selecting the portion of population to represent the entire population. The sample for the present study comprises of 60 mothers’ of under five children in selected rural area in Anand district.

Sampling Criteria:

Inclusion Criteria:-Mother’s of under five children who are willing to participate in study. Mother’s of under five children who knows Gujarati and English

Exclusion Criteria:-Mother’s of under five children who are not available at the time of data collection.

Mother’s of fewer than five children who are not willingly participate in the study.

Data Collection Technique and Tool:

For collecting the data a set of questionnaire was prepared by the researches. A set of questionnaire for assessment of knowledge and checklist questionnaire was prepared for assessing the knowledge of sample (mothers of fewer than five children). The tool consists of 2 sections.

Section: A:Socio-demographic data that consist of 8 items seeking information related to age, education, religion, occupation, experience, number of child, participation of any program regarding PEM, history of PEM in family etc.

Section: B Self-administer knowledge questionnaire is used to assess the knowledge of mother’s of under five children. Following steps are considered in development of tool. The scoring scale consists of one correct option for all multiple choice questions. There are total 30 question items. Score “1” is given for correct response and score “0” is given for incorrect response.

The score range from minimum of “score 0” and maximum of “score 30”. The knowledge level is arbitrarily divide into 3 category based on self-administered knowledge questioner and accordingly the scores were allotted.

Adequate knowledge
Moderate knowledge
Inadequate knowledge

Plan for Data Collection:

A formal permission obtained from the Sarpanch of one village. The data collection will be done within a given period of 30 minutes for pre-test and post-test.

Plan of Analysis of Data:

Descriptive: Mean mode, median, percentage and standard deviation.

Inferential: co-efficient, co-relation and chi square to establish the association between Demographic variable and knowledge regarding PEM among the mother’s of under five children at Rural area in Anand district.

Analysis and Interpretation Descriptive Statistics:

Frequency and percentage distribution is used to describe the demographic variables.

Inferential Statistics:

‘I’ test will be used to find the effectiveness of STP on prevention of PEM. Chi-square test will be used to find out the association between pre-test & post knowledge levels with selected demographic variable among the mother’s of fewer than five children.

Data Analysis and Interpretation:

Analysis is a process of organizing and synthesizing data in such a way that research question can be answered and hypothesis can be tested.

This chapter deals with the analysis and interpretation of the data collected from 60 sample of mother’s of under five children through structured questionnaire to assess their knowledge regarding PEM and to determine the effectiveness of STP on knowledge regarding PEM. The aim of the analysis is to give organize and meaningful data.

The purpose of the analysis is to summarize, compare and test the proposed relationship findings. The collected data are tabulated on the master sheet and analysed using descriptive and inferential statistics. The data were analyzed according to the objective of the study under the following heading.
The Objectives of Study Area:
To assess pre-existing knowledge of selected Mother’s Of Under Five Children regarding Protein energy malnutrition. To evaluate the effectiveness of Structured teaching programme on knowledge regarding.
To find out an association between pre test knowledge scores with their selected demographic variables.

Summary of the Findings Discussion Conclusion Implication and Recommendation:
This chapter deals with the discussion of the major findings of the study, summary and it’s implication to nursing practice and recommendation for further study. The objectives of the study were;

Summary: This chapter presents a brief account of the present study; conclusion drawn from the findings, implications, and recommendation for further research in area.

Bibliography: