Knowledge regarding protein energy malnutrition among mothers of under five children.

[1]Ms. EktaS Patel,

Assistant Professor in MSN Department.

[2]Ms Dipika Mistry, [3]Ms Priyanka Kolcha, [4]Ms Jyotika Rathva,

II year P.B.BSc.Nursing.

Sumandeep Nursing College, Sumandeep Vidyapeeth deemed to be University

, Piparia, Waghodia, Vadodara , Gujarat, India, Gujarat, India.

*Abstract***:**

BACKGROUND: Good nutrition promotes normal growth and development of children in life. The relationships between food, nutrition and health have long been recognized. Protein Energy Malnutrition (PEM) or Protein Calorie Malnutrition (PCM) is a widespread nutritional disease in the developing countries.

AIM: The present study was conducted with the objective to assess existing knowledge regarding prevention and control of protein energy malnutrition among mother of less than five year children and identify association between knowledge score with selected demographic variables.

METHOD: A quantitative research approach with descriptive one group pre test design was used. 60 samples were selected by using purposive sampling technique. A structured questionnaire was prepared to assess the knowledge regarding protein energy malnutrition among mother of fewer than five year children.

RESULT: The result shown that majority participants, 78% have average knowledge related protein energy malnutrition, 22% have poor knowledge regarding protein energy malnutrition. The Chi Square test was used to identify association between knowledge score with selected demographic variable. Monthly income of family (13.99>5.99) significant at 0.05 level of significance, demographic variable i.e. age of mother, religion, type of family, occupation, education, dietary pattern, number of under five children in the family, and any previous knowledge regarding malnutrition were non-significant at 0.05 level of significant hence H_1 hypothesis is partially accepted.

CONCLUSION: The study concluded that majority of mother has average knowledge related protein energy malnutrition.

Key Words: Descriptive study, knowledge, protein energy malnutrition, mother of under five year children.

INTRODUCTION:

Children are making seeds for the future. They deserve the utmost care from us. They are like wet clay in the hand of a potter.[1]Good nutrition promotes normal growth and development of children in life. The relationships between food, nutrition and health have long been recognized.A national health depends on healthy citizens. A healthy adult emerges from healthy child. Children are priceless resources and if the nation neglects their health it would become a nation of unhealthy citizens.[2]

Food is an important and basic biological need of children. It is essential for life, growth and repair of the human body, regulation of body mechanism and production of energy for work. The nutrition of people on a global level is of great concern today particularly in developing nations.[3]The World Health Organization defines malnutrition, "The cellular imbalance between supply of nutrients and energy and the body's demand for them to ensure growth, maintenance, and specific function."[4]

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 will 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 mother's who manage food resources within the household.[5]

Under –nutrition is widely recognized as a major health problem in the developing countries of the world. Severe protein energy malnutrition, often associated with infection contributes to high child mortality in hospital. Protein energy malnutrition is an important nutrition problem among preschool age children. Protein-energy malnutrition is a potentially fatal body-depletion disorder. Protein-energy malnutrition is measured in terms of underweight [low weight for age,] stunting [low height for age]and wasting[low weight for height].A total 80% of the children affected live in Asia-mainly in southern Asia. Apporoximately,43% of children [230 million] in developing countries are stunted. Efforts to accelerate significantly economic development will be unsuccessful until optimal child growth and development are ensured for the majority.High risk factor for malnutrition in, accounting for 58-65% of total calories and proteins consumed in 1999-2000.The worst performing states with underweight children under five years of age are Madhya Pradesh (60%), Jharkhand (56.5%) and Bihar (55.9%).[6]

LITERATURE REVIEW: Total 33 reviews were gathered which are drown from various sources like database, articles, books and journal. The reviews were divided into three sections; review related to

general information regarding nutritional status of children, studies related to causes and risk factors about protein energy malnutrition and reviews related to prevalence.

STUDY OBJECTIVES:

1. Assess existing knowledge regarding prevention and control of protein energy malnutrition among mother of children under five children.
2. Identify association between knowledge score and selected demographic variables.

MATERIALS AND METHOD:

In this study, the research design was descriptive one group pre-test design.The study was conductedatPaediatric OPD of Dhiraj Hospital, Vadodara. Mothers of under five year children were selected as a sample. Total sample size was 60 which were chosen by using purposive sampling technique.

Inclusion criteria

- Mothers of under five years children of who are willing to participate.
- Mothers of under five years children who are able to read Guajarati, Hindi or English.
- Mothers of under five years children who having age between 25-45 years.
- Mothers of under five years children who is attending Paediatric OPD.

Exclusion Criteria:

- Mother who are not available during the time of data collection.

Tool for data collection:

This consists of two parts:

Section 1: Social Demographic variables includes age of mother (in year), religion, type of family, occupation, education, monthly family income (in rupees), dietary pattern, number of children in the family, any previous knowledge regarding malnutrition.

Section 2: Structured Knowledge questionnaires related protein energy malnutrition was used to assess the knowledge of mother of under five years children.

Scoring procedure: For knowledge questionnaire, if answer is correct -1, if answer is incorrect-0

Scoring interpretation

Poor: - 1-10

Average: - 11-20

Good: - 21-30

Data collection procedure

Prior permission was obtained from the Medical superintendent of Dhiraj hospital. The data collection was done within a given period of 1 week, dated 2nd march to 5th march 2019. After a brief introduction of the self and establishing the rapport, the investigator has selected the sample with purposive sampling technique and gives a brief detail about the nature of the study and its purpose and mother of 0-5 year age of child who participates were given an information letter to read regarding the details of the study. Data was collected by using pre testknowledge questionnaire.

Statistical design

Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi square and paired t test) was applied to test the study hypothesis.

DISCUSSION:

This research establishes the importance of adequate knowledge regarding food pattern, antenatal care, social and psychological believe. Because maternal acquaintance can save the child from getting preventable problems like malnutrition. Mohammad Mohseni et al (2019) has conducted a study, they stated that; more attention should be paid to the shortage of some micronutrients, accurate implementation of breastfeeding programs, supplementary nutrition, fortification and supplementation programs for children and mothers, utilization of the advantages of each region and its resources, and better coordination between organizations and their policies, and finally strong incentives are needed to promote macro nutritional goals for children under five years of age. Chetan S Patali et al (2018) conducted descriptive study, which concluded that the education program should give importance to equip the mothers with adequate knowledge regarding nutrition there by prevention from threat of nutritional deficiencies. AnsuyaBengre et al (2018) conducted a systematic review and meta analysis the finding of this review indicate that malnutrition is still and important problem in children. there is a need for finding the risk factors for malnutrition and consistent effort from department and parents concerned to improved the notional status further to reduced morbidity among children.

FINDINGS

SECTION: I

ASSESSMENT OF PRE- TESTKNOWLEDGE ON PROTEIN ENERGY MALNUTRITION

Table 1: Pre- Test Knowledge on Protein Energy Malnutrition.

N=60

Sr. No.	Knowledge Aspects	Maximum Score	Mean	Mean %	SD

1	Introduction	5	2.1	42%	1.16
2	Causes	3	0.98	33%	0.59
3	Sign And Symptoms, Risk Factor, And Complication	13	5.9	45%	2.48
4	Diagnosis Evaluation	1	0.68	68%	0.47
5	Prevention And Management	8	3.41	43%	1.46

Above table reveals that the introduction comprises of 5 items had a mean of 1.2 with a standard deviation of 1.16 and mean % of 42%. Cause with 3 items had mean of 0.98 with 0.59 standard deviations and mean % of 33%. Sign And Symptoms, Risk Factor, And Complication with 13 items had mean of 5.9 with standard deviation of 2.48 and mean % of 45%. Diagnosis Evaluation had 1 item with mean of 0.68 with standard deviation of 0.47 and mean % of 68%. Prevention And Management of 8 items had means of 3.42 with standard deviation of 1.46 and mean % of 43%.

Table 2: Overall knowledge level in Pre Test

N=60

SCORE	KNOWLEDGE	
	FREQUENCY	**PERCENTAGE**
Poor	13	22%
Average	47	78%
Good	0	0%

SECTION-2

FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES

The majority of samples 80% belong to 18-28 years of age. The highest percentages 86.70% of mothers are Hindu. Maximum mothers48.33% are staying in Joint family.63% of mothers are house wife. Maximum 50% of mothers are Secondary educated. 43.33% of mothers are having monthly family income above 9001. Maximum 53.33% of mothers are vegetarian, majority of 46.66%family have 2 Childs in family, and.93.33% of mother has no knowledge regarding malnutrition.

SECTION -3ASSOCIATION OF THE PRE- TEST KNOWLEDGE SCORE AMONG MOTHER WITH THEIR DEMOGRAPHIC VARIABLE

Table 3: Association of the Pre- Test Knowledge Score among Mother with Their Demographic Variable

N = 60

Sr. No.	Variable		x^2	df	Level of significance at 0.05 level
1	**AGE OF MOTHER**	18-28 years	0.40	2	5.99 NS
		29-38years			
		39-49 years			
		Above 48			
2	**RELIGION**	Hindu	2.80	3	7.82 NS
		Muslim			
		Christian			
		Others			
3	**TYPE OF FAMILY**	Nuclear family	1.29	2	5.99 NS
		Joint family			
		Extended family			
		Single parent family			
4	**OCCUPATION**	Employed	4.57	3	7.82 NS
		Self employed			
		House wife			
		Unemployed			
5	**EDUCATION**	Illiterate	2.26	3	7.82 NS
		Primary education			
		Secondary education			
		Graduate			
6	**MONTHLY FAMILY INCOME**	Below 3000	13.81	2	5.99 S
		3001-6000			
		6001-9000			
		Above 9001			
7	**DIETARY PATTERN**	Vegetarian	3.34	2	5.99 NS
		Non vegetarian			
		Mixed			
8	**NUMBER OF UNDER FIVE CHILDREN IN THE FAMILY**	1	1.97	3	7.82 NS
		2			
		3			
		More than 3			

* Significant at 0.05 (95%) level

RESULT:

The result shown that majority participants, 78% have average knowledge related protein energy malnutrition, 22% have poor knowledge regarding protein energy malnutrition. The Chi Square test was used to identify association between knowledge score with selected demographic variable. Monthly income of family (13.99>5.99) significant at 0.05 level of significance, demographic variable i.e. age of mother, religion, type of family, occupation, education, dietary pattern, number of under five children in the family, and any previous knowledge regarding malnutrition were non - significant at 0.05 level of significant hence H_1 hypothesis is partially accepted.

RECOMMENDATIONS:

Based on finding of present study recommendation offered for the further study are:

- The similar study can be conducted on large sample
- A comprehensive study can be undertaken to see the difference between the rural and urban areas regarding prevention and control PEM.
- Regular health education programmers can be conducted by health personal related to prevention and control.

CONCLUSION:

The present study assessed the existing knowledge regarding prevention and control of protein energy malnutrition among mother of less than five year children. According to the knowledge score of the mothers, found that maximum mother have average knowledge score regarding prevention and control of protein energy malnutrition. No one is having adequate knowledge on this subject. This suggests that awareness program regarding protein energy malnutrition is required to minimize the incidence.

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