A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION OF PROTEIN ENERGY MALNUTRITION AMONG THE MOTHERS OF PRESCHOOLER CHILDREN AT SELECTED COMMUNITY AREA IN KANPUR, UTTAR PRADESH.

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ABSTRACT:

Background: Protein-Energy Malnutrition (PEM) is a significant public health issue, especially in low-income and developing regions. It occurs when there is a deficiency of protein and calories in the diet, which is vital for the proper functioning of the body. The condition can result in a range of health issues, including stunted growth, weakened immunity, and muscle wasting. PEM is often categorized into two types Kwashiorkor and Marasmus. PEM often arises due to factors such as poverty, food insecurity, lack of access to healthcare, and inadequate maternal nutrition. It can also be exacerbated by conditions like infections and chronic diseases that increase the body's nutritional demands. In severe cases, PEM can be fatal, particularly in young children and the elderly. **Objectives:** The aim of this study was to assess the knowledge regarding prevention of protein energy malnutrition among the mothers of preschooler children.**Methods:** The research approach adopted for this study is a Quantitative research approach. The research design was pre-test and post-test design. The study was conducted at Rural Area of Kanpur at Kukradev. A Convenient sampling technique was used. Self Structured knowledge questionnaire was used to assessing the knowledge regarding prevention of protein energy malnutrition among mothers of preschooler children. **Results:** In pre- test (66.66%) mother have Poor knowledge, (26.66%) mother have Average and (6.66%) mothers have good knowledge. The Pre-test knowledge score of mothers of under-five children mean and SD was (10.834.67.) In post-test(66.66%) of the mothers have good knowledge, (30%) of the mothers have average knowledge. (3.33%) of the mothers of preschooler children has poor knowledge. The Post-test knowledge score of mothers of preschooler children mean and SD was (21.473.56). It reveals that most of mothers have good knowledge despite that STP

is effective. The computed 't' value (t =22.5) was higher than the table value (t=2.04) at 0.05 level of significance. Hence, the research hypothesis H_1 was accepted. **Conclusion:** The study concluded that the structured teaching program was effective in increasing the knowledge level of mothers of preschooler children on prevention of protein energy malnutrition.

INTRODUCTION

According to UNICEF report (2019), Malnutrition caused 69% of deaths among children below the age of five in India. It also mentioned that every second child in under five age group is affected by some form of malnutrition. Over the decades, despite growing in comes, protein-based calories remain low and unchanged and the caloric share of fruits and vegetables has declined.[1]Children of today are citizens of tomorrow, and hence improving nutritional status of children becomes extremely important. Protein energy malnutrition condition is the preventable one. Mothers are playing vital role in the care of under five children.[2]The researcher believed that educating mothers of under five children regarding prevention of protein energy malnutrition will reduce the prevalence of PEM among children. In rural areas, most number of the mothers have disbeliefs, taboos and doubts regarding nutritional needs of the children. If we educate them properly, we will improve the nutritional status of the children.[3]

NEED FOR STUDY

Malnutrition refers to the situation where there is an unbalanced diet in which same nutrition are excess (l- 6)1h or wrong proportion; simply, put we can categories it to be under nutrition and over nutrition Despite Indies 50% increase GDP since 1991 more than one third of the worlds among these halves of themunder3areunderweightandthirdofwealthiest children are over nutrimental. India is one of the fastest growing countries in terms of population and economic, sitting at a population of 1.342 billion and growing at 1.5% 1.7% annually (Iron 2001 -2007) India's gross domestic product growth was 9.0% from 2007 to 2008, since independence in 1947 its economic status has been classified as a low-income country with majority of the population at or below the poverty line. Lastly, we need to understand level of knowledge of the mother regarding the malnutrition and management of malnutrition. The study should that knowledge of malnutrition will help to prevent the malnutrition.

PROBLEMSTATEMENT:

A study to assess the effectiveness of structured teaching program on knowledge regarding prevention of protein energy malnutrition among the mothers of preschooler children at selected community area in Kanpur Uttar Pradesh.

OBJECTIVES:

1. To assess the pre-test knowledge regarding prevention of protein energy malnutrition among mothers of pre-schooler children.
2. To assess the effectiveness of structured teaching program on knowledge regarding prevention of protein energy malnutrition among mothers of pre-schooler children.
3. To find out the association between pre-test knowledge score of mothers of preschooler children with their selected demographic variables.

HYPOTHESIS :

H1: There is a significant difference between pre test and post test level of knowledge scores regarding prevention of protein energy malnutrition among the mothers of preschooler children.

H2: There is a significant association between post test level of knowledge scores among the mothers of preschooler children with their selected demographic variables.

MATERIAL AND METHODS:

Research approach: Quantitative research approach was used.

Research design: Pre-experimental one group pre- test post-test design.

VARIABLES:

Independent variables: structured teaching program (STP) regarding prevention of protein energy malnutrition among mothers of pre-schooler children.

Dependent variables: knowledge of mothers of pre- schooler children regarding prevention of protein energy malnutrition.

Demographic variable: Such as age, religion, education, occupation, monthly income, dietary pattern, no. of children, type of family, source of information.

Research setting:

The study was conducted in community area in Kukradev in Kanpur

Population: In this study population consisted of mothers of pre-schoolerchildren.

Sample:

Mothers of pre-schoolerchildren's

Sample size: 60 mothers of pre-schoolerchildren.

Sample techniques :

Non-probability convenient sampling technique.

Criteria for sample selection:

Inclusion criteria:

- Subjects of selected community area in Kanpur.
- Subjects of selected Mothers who have pre- schooler children residing only at selected community area.
- Subjects of selected Mothers who have pre- schooler children were available during the period of data collection.
- Subjects of selected Mothers able to understand Hindi/English.

Exclusion criteria:

- Mothers who do not have pre-schoolerchild.
- Mothers of pre-schooler children who were not willing to participate in the study.

Tool and method of data collection:

DEVELOPMENT OF TOOL

The structured teaching program for mother's pre- schooler children regarding prevention of protein energy malnutrition in children was developed after reviewing the literature, seeking opinion of the experts and experiences of many persons.

DESCRIPTIONOFTHETOOL

Structured interview schedule – It has two parts section A and B.

Section A-Socio-Demographic variables- the first part consisted of 8 items related to baseline characteristics (Age, Religion, education, occupation, monthly income, dietary pattern, no. of children, type of family, source of information.)

Section B – Self Structured knowledge questionnaire regarding protein energy malnutrition. Questionnaire is prepared for assess the knowledge of subjects regarding protein energy malnutrition. Which consist of 30 items with multiple choice questions. Each question carries four options, each correct answer was given a score of "1" and "0" for wrong answer. Thus, a total of 30 marks were allotted for 30 items.

RESULTS:

Table1: Frequency & percentage distribution of mothers of Pre schooler children based on demographic viable.

N=60

Sl. No	Selected Demographic variables	Frequency (f)	Percentage (%)
1.	**Age in years**		
	a) ≤22	24	40
	b) 23 to 27	20	33
	c) 28 to 32	10	17
	d) Above 33	6	10
2.	**Religion**		
	a) Hindu	58	97
	b) Muslim	2	3
	c) Christian	0	0
	d) Others	0	0
3.	**Educational status**		
	a) Illiterate	10	17
	b) Primary	20	33
	c) Highschool	22	37
	d) Above higher	8	13
4.	**Occupation**		
	a) Housewife	32	53
	b) Labour	22	37
	c) Business	6	10

	d) other	0	0
5.	**Monthly incomein Rs**		
	a) less than 2000	12	20
	b) 2001-4000	18	30
	c) 4000-6000	14	23
	d) Above 6000	16	27
6.	**Dietary pattern**		
	a) Veg	32	53
	b) Non- veg	28	47
7.	**No. of children**		
	a) 1	27	45
	b) 2	14	23
	c) 3	17	29
	d) More than 3	2	3
8.	**Type of family**		
	a) Nuclear	26	43
	b) Joint	24	40
	c) Extended	8	14
	d) Step	2	3

Table No:1 shows that highest (40%) of mothers belongs to 18-22years, and (33.33%) belongs to 23-27years, (16.66%) belongs to 28-32, whereas only (10%) of mothers of pre-schooler children were above 33 years. Highest (96.66%) of mothers of pre-schooler children were belonging to Hindu, and (3.33%) belonging to Muslim, however only (0%) and (0%) of them belongs to others religion and Christian respectively. Highest (36.66%) of the mothers have primary education, (33.33%) mothers have high school education, (16.66%) mothers are illiterate and (13.33%) of the mothers have high school education. Highest (53.33%) of mother's occupation is house-wife, (36.66%) mothers' occupation is Labour, however only (10%) mothers' occupation is business. Highest (30%) family monthly incomes belong to 2001-

4000, (26.66%) family monthly income belongs to above >6000 RS., (23.33%) family monthly income belongs to 4000-6000, however only (20%) belongs to <2000RS. Highest (53.33%) of the mothers Non–veg, (46.66%) of them Veg of the mothers. Were non-vegetarian (46.66%) mothers being vegetarian. Highest (50%) belongs to mother of 1 children, (23.33%) belongs to 2children, (28.33%) belongs to 3 children & (3.33%) belongs to more than 3 children. Highest (43.33%) of mothers belongs to nuclear family, (40%) belong to joint family, (13.33%) belongs to extended family, (3.33%) belongs to step family.

TABLE 2: FREQUENCY AND PERCENTAGE DISTRIBUTION OF SAMPLE ACCORDING TO PRE TEST AND POST TEST LEVELS OF KNOWLEDGE REGARDING PREVENTION OF PROTEIN ENERGY MALNUTRITION

N = 60

SL. NO	KNOWLEDGE ON PREVENTION OF PROTEIN ENERGY MALNUTRITION	LEVEL OF KNOWLEDGE					
		INADEQUTE (1-33%)		MODERATE (34-66%)		ADEQUATE (>67%)	
		f	%	F	%	f	%
1	PRE TEST	40	67	16	27	4	6
2	POST TEST	2	3	18	30	40	67

Table No 2 Pretest level of knowledge regardingprevention of protein energy malnutrition among the mothers of preschooler children reveals that majority 40(67%) had inadequate knowledge, 16(27%) had moderate knowledge and 4(6%) had adequate knowledge. Post test reveals that majority 40(67%) had adequate knowledge, 18(30%) had moderate knowledge and 2(3%) had inadequate knowledge.

TABLE 3: DIFFERENCE BETWEEN PRE TEST AND POST TEST LEVEL OF KNOWLEDGE REGARDING PREVENTION OF PROTEIN ENERGY MALNUTRITION

N = 60

S.No	Category	Mean	Standard deviation	Mean differ-ence	Paired 't'test		p Value	Inference
					Cal value	tab value		
1	Pre test knowledge	10.83	4.67	10.64	22.5	2.00	0.0001	P<0.05
2	Post test knowledge	21.47	3.56					

TableNo 3 shows that the obtained post test mean value (21.47 ± 3.56) of knowledge was higher than the knowledge of pre test value (10.83 ± 4.67) respectively. The mean difference was 10.64. The obtained calculated "t" value was 22.5, which is greater than the tabulated value i.e., 2.00, "p''value 0.0001. It shows that there was significant difference between pretest and posttest knowledge. Thus, indicating planned teaching programe was highly effective. Hence H1,There is a significant difference between pre-test and post-test knowledge scores regarding prevention of protein energy malnutrition was accepted.

TABLE 4: ASSOCIATION BETWEEN PRE TEST LEVELS OF KNOWLEDGE WITH THEIR SELECTED DEMOGRAPHIC DATA

N =60

S. No	Demographic Variables	LEVEL OF KNOWLEDGE			Chi-square χ^2		df	Inference
		Inadequate	Moderate	Adequate	Cal. value	Tab value		
1	**Age in years**							
	a) ≤22	20	4	0				
	b) 23 to 27	16	2	2	13.68	12.59	6	S
	c) 28 to 32	4	4	2				

	d) Above 33	0	6	0				
2	**Religion**							
	a) Hindu	38	16	4	0.53	12.59	6	NS
	b) Muslim	2	0	0				
	c) Christian	0	0	0				
	d) Others	0	0	0				
3	**Education**							
	a) Illiterate	8	2	0				
	b) Primary	14	8	0	13.52	12.59	6	S
	c) Highschool	18	0	2				
	Above higher	0	6	2				
4	**Occupation**							
	a) Housewife	24	6	2				
	b) Labour	16	6	0	8.34	12.59	6	NS
	c) Business	0	4	2				
	d) Other	0	0	0				
5	**Monthly income in Rs**							
	a) less than 2000	10	2	0				
	b) 2001-4000	12	6	0				
	c) 4000-6000	6	6	2	3.97	12.59	6	NS
	d) Above 6000	12	2	2				
6	**Dietary pattern**							
	a) Veg	18	12	2				
	b) Non- veg	22	4	2	2.02	5.99	2	NS
7	**No. of children**							
	a) 1	18	12	0				

	b) 2	10	2	2	18.38	12.59	6	S
	c) 3	12	2	0				
	d) More than 3	0	0	2				
8	**Type of family**							
	a) Nuclear	18	8	0				
	b) Joint	16	6	2	15.33	12.59	6	S
	c) Extended	6	2	0				
	d) Step	0	0	2				

Tableno.4 shows that there was significant association between pre-test knowledge score with age, Education, no. of children and Type of family of mothers of pre-schooler children at level of 0.05.There was non-significant association between pre-test knowledge score are Religion, Occupation, Monthly income and Dietary pattern of mothers of pre-schooler children at level of 0.05. Hence H2 there is a significant association between pre test levels of knowledge with their selected demographic variables was accepted.

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