ISSN Print: 2581-8546 ISSN Online: 2582-2934

Received	Accepted	Published
10/04/2022	14/04/2022	08/05/2022

Original Article

"A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE AMONG MOTHERS OF UNDER FIVE CHILDREN REGARDING PREVENTION OF PROTEIN ENERGY MALNUTRITION AT SELECTED AREA OF VISNAGAR, GUJARAT WITH A VIEW TO DEVELOP INFORMATION GUIDE SHEET FOR MOTHERS"

Dr. Sneha Sahay Youtham[1], Mr. Abhishek Jain[2]

[1]Professor, Department of Nursing (Supervisor), Malwanchal University, Indore

[2]P.hd. Scholar, Malwanchal University, Indore

Corresponding E-mail : niaj1987@gmail.com

ABSTRACT

Background of the Study : PEM is measured in terms of underweight (low weight for age), stunting (low height for age) and wasting (low weight for height). The prevalence of stunting among under five is 48% (moderate and severe) and wasting is 20% (moderate and severe) and with an underweight prevalence of 43% (moderate and severe),it is the highest in the world. The majority of children suffering from under nutrition (80%) are the mild and the moderate forms which go unnoticed and the early ages are affected more which makes the process irreversible.

Methods & Material : Pre experimental research design was used in present study with 100 mothers of under 5 children in selected area of Indore. Non probability purposive sampling technique was used 30 self structured knowledge questioner & 10 practice check list were used to assess knowledge & practice of mothers under 5 year children regarding prevention of PEM.

Result : Data was collected by using self prepared structured interview schedule. Data was analysed and interpreted by applying respective statistical methods. The conclusion of the study was drawn on the basis of major findings which are as follows: Majority of the respondents were in the age group of 19-30 years and all were Hindus. Highest percentage of respondents had a family income of less than Rs. 3000 per month. Overall mean knowledge score among respondents was found to be 52.05% on prevention of protein energy malnutrition. Overall mean practice score among respondents established with 53.26 percent indicating better practice on the aspect of breast feeding practices.

Conclusion : Overall observation showed that existing knowledge and practice is found around 52.89 percent on prevention of protein energy malnutrition. The enhancement in both knowledge and practice is very much required.

Keywords : Knowledge, Practice, Protein Energy Malnutrition

INTRODUCTION :

According to World Health Organization, protein energy malnutrition (PEM) refers to "an imbalance between the supply of protein and energy and the body's demand for them to ensure optimal growth and function". It is a major public health problem in India. It affects particularly the preschool children (<6 years) with its dire consequences ranging from physical to cognitive growth and susceptibility to infection. This affects the child at the most crucial period of time of development which can lead to permanent impairment in later life.

RESEARCH METHODOLOGY

According to Abdellah (1979) research methodology involves the systematic procedure by the researcher which starts from initial identification of the problem to its final conclusion. Research Approach is experimental research approach for this study. The research design selected for the present study was pre experimental research design. The study was conducted in selected area of Visnagar Gujarat. In this study, the target and accessible population consisted of mothers of 0-5 year age children at selected area of Visnagar Gujarat. Sample size was 100 mothers in experimental group of 0-5 year children. Nonrandom purposive sampling technique was used to select the samples in the study. The tool used for the study includes socio demographic proforma, clinical proforma and structured knowledge questionnaire & practice checklist regarding prevention of PEM.

Guide Sheet was prepared regarding prevention of PEM and adopts good practice habits. Pilot study was conducted in mothers of 0-5 year children in selected area of Visnagar

DOI:10.46376/GNJI/5.I.2022.408-413

ISSN Print: 2581-8546 ISSN Online: 2582-2934

Gujarat Permission was obtained from the head of the institution for conducting the pilot study. The data was analysed using both descriptive and inferential statistics such as mean, standard deviation, paired t-test and chi-square test. For this study the investigator took into consideration of the ethical issues. No ethical issues rose against conducting the study.

DATA ANALYSIS AND INTERPRETATION

An experimental approach was adopted and data collected from 100 respondents were tabulated analyzed and interpreted by using descriptive and inferential statistics.

The finding was presented under the following sections.

Section I : Demographic characteristics of the respondents.

Section II :

- Item wise knowledge score of mothers of under five children regarding prevention of protein energy malnutrition.
- Area wise knowledge score of mothers of under five children regarding prevention of protein energy malnutrition.

Section III :

- Item wise practice score of mothers of under five children regarding prevention of protein energy malnutrition.
- Area wise practice score of mothers of under five children regarding prevention of protein energy malnutrition.

Section IV : Findings related to association between knowledge and practice score.

SECTION - I :

Distribution of the Samples According to Demographic Variables

Table - 1 Percentage Distribution of Samples According to Demographic Variables N=100

S.No.	Demographic variable	Frequency	Respondents	Percentage
1	Age in Yr.	18 and below	12	12
		19-30	79	79
		31-45	9	9
		Total	100	100%
2	Family Type	Nuclear	73	73
		Joint	27	27
		Total	100	100%
3	Occupation	House wife	71	71
		Self-employment	15	15
		Daily wage	14	14
		Total	100	100%
4	Income	≤5000	2	2
		5001-10000	46	46
		10001-15000	44	44
		≥15001	8	8
		Total	100	100%
5	Educational status	Illiterate/No-Formal Education	20	20
		Primary School	19	19
		Higher Primary	28	28
		Higher Secondary	23	23
		PUC	10	10
		Total	100	100%
6	Religion	Hindu	79	79%
		Muslim	19	19%
		Christian	2	2%
		Total	100	100

DOI:10.46376/GNJI/5.I.2022.408-413

ISSN Print: 2581-8546 ISSN Online: 2582-2934

- Majority (79%) of the respondents were between the age group of 19-30 years with educational level (28%) up to Higher Primary School.
- Higher percent of respondents classified (71%) as house wives in occupation status of respondents and all are found to be Hindus (100%).
- Higher number of respondents (73%) were from nuclear family with income less than Rs.5000.

SECTION - II:

Item Wise Knowledge Score of Mothers regarding Prevention of Protein Energy Malnutrition

S. No.	Knowledge	Percentage	
		Mean	SD
I - Meaning, Definition and Importance of Nutrition			
1	Meaning of Malnutrition	58.0	49.6
2	Meaning of Balanced Diet	49.0	48.2
3	Importance of Normal Nutrition for Children	48.0	47.2
II - Causes of Protein Energy Malnutrition			
4	Factors that influence PEM	58.0	49.6
5	Major cause of PEM	63.0	48.5
III - Signs and Symptoms of Protein Energy Malnutrition			
6	Common signs of PEM	48.0	45.2
7	Associated Signs and Symptoms of PEM	46.0	45.1
IV - Prevention of Protein Energy Malnutrition			
8	First Feed for the Baby	48.0	46.2
9	Meaning of Colostrum	46.0	55.1
10	The Benefit of Colostrum	81.0	39.4
11	Duration of excusive Breast Feeding	60.0	49.2
12	Meaning of Weaning	65.0	47.9
13	Causes of Diarrhea	51.0	50.2
14	Time for initiation of solid food	24.0	23.9
15	Measures of prevention of PEM	63.0	48.5
16	Common food for health of the child	26.0	24.1
17	Importance of pulses and cereals for children	60.0	49.2
18	Main Sources of Protein	60.0	49.2
19	Importance of Vegetables for children	43.0	42.8
20	The Normal Daily Requirement of Protein	43.0	42.8

Item wise mean knowledge scores mothers regarding prevention of protein energy malnutrition. 81 percent of mothers were aware of the benefit of Colostrum, followed by 65 percent of the mothers who knew meaning of weaning and 63 percent of the mothers were aware of the measures of prevention of PEM and major causes of PEM. 60 percent of mothers knew the main sources of protein, importance of pulses and cereals in children and duration of exclusive Breast Feeding.58% of the mothers were aware of meaning of malnutrition, and factors which influence PEM, followed by 51 percent of mothers who knew the causes of diarrhea. 46 percent of mothers knew the meaning of colostrum, followed by 43 percent of mother had knowledge of importance of vegetables for children and the normal daily requirement of protein. 26 percent of mother knew the common food for health of the child and only 24 percent of mothers who knew the time of initiation of solid food to their children.

Area Wise Knowledge Scores of Mothers among under Five Children regarding Prevention of Protein Energy Malnutrition

S. No.	Area	Max Score	Mean Score	SD	Percentage	
					Mean	SD
1.	Meaning, Definition & Importance of Nutrition	6	1.55	1.17	52.0	39.0
2.	Causes of PEM	4	1.21	0.86	60.5	43.0
3.	Signs and Symptoms of PEM	4	0.94	0.85	47.0	42.5
4.	Prevention of PEM	16	6.71	0.85	52.0	42.5
	Total	30	10.41	5.619	52.05	28.09

Findings of above the table shows that highest 60.5 percent of knowledge score in the area of causes of prevention of protein energy malnutrition, followed by 52 percent of knowledge score in the area of meaning, definition and importance of nutrition and prevention of PEM. Further knowledge score was 47 percent in the signs and symptoms of PEM. However an overall mean percent of knowledge score was found to be 52.05 percent.

DOI:10.46376/GNJI/5.I.2022.408-413

ISSN Print: 2581-8546 ISSN Online: 2582-2934

SECTION - III :

Item Wise Practice Scores Mothers regarding Prevention of Protein Energy Malnutrition

n = 100

S. No.	Items	Percentage	
		Mean	SD
	I - Breast Feeding Practices		
1	First Feed given to new born immediately after birth	64.0	48.2
2	Initiation of Breast Feeding to new born child	71.0	45.6
3	Supplementary food in addition of Breast Feeding for six months age of child	69.0	46.5
4	Duration of breast feeding with weaning	64.0	48.2
	II - Weaning Practices		
5	Time to Initiation solid food	73.0	44.6
6	The precautions during weaning	65.0	47.9
	III - Dietary Practices		
7	Time for giving egg	56.0	49.9
8	Frequency of eggs to child	27.0	26.6
9	Time for giving green leafy vegetables to Child	27.0	26.6
10	Frequency of Milk to child	58.0	49.6
11	Time for initiation of Pulses and Cereals to Child	54.0	50.1
12	Preparation of green leafy vegetables	31.0	29.5
13	Preservation of Nutritive Value of Cereals	48.0	47.2
	IV - Management of Diarrhoea		
14	Management of diarrhea in children	29.0	28.6
15	Preparation of homemade ORS	36.0	35.2

Item wise practice score of mothers regarding practices of breast feeding, weaning practices, dietary practices and management of diarrhoea. Majority, 73 percent of the mothers start solid food at the right age of 8 to 9 months, followed by 71 percent of mothers initiate breast feeding with in half hour after delivery, further 69 percent of mothers had right practice of introduction of supplementary food in addition of breast feeding at six months age of child , 64 percent of mothers had the good practice of feeding breast milk as first feed to new born immediately after birth and correct duration of breast feeding with weaning, followed by 58 percent of mothers who practiced giving two cups of milk per day to children. 56 percent of mothers had the good practice of starting of egg preparation at the age of six and seven months of age, followed by 54 percent of mothers practicing the right time for giving Pulses and Cereals to child at six and seven months of age. 48 percent of the respondents had the right practice of cooking cereals in small utensils with minimum water, followed by 36 percent of the mothers prepare homemade ORS when the baby had diarrhoea. Further 31 percent of the mothers introduced green leafy vegetables for the child between 6 to 7 months of life.29 percent of the mothers manage diarrhoea in children at home, followed by 27 percent of mothers giving one egg to their children everyday and right practice of introducing green leafy vegetables to the Child at 6 to 7 months of life.

Area Wise Practice Score of Mothers among under Five Children Regarding Prevention of PEM

S. No.	Area	Max Score	Mean Score	SD	Percentage	
					Mean	SD
1.	Breast Feeding Practices	3	2.88	1.14	72.0	28.5
2.	Weaning Practices	2	1.4	0.79	70.0	39.5
3.	Dietary Practices	3	3.06	1.67	43.7	23.8
4.	Manage-ment of Diarrhea	2	0.65	0.78	32.5	31.0
	Total	10	7.99	3.29	53.26	21.96

Findings of the above table reveals that majority 72 percent of the mother had right practices of breast feeding, followed by 70 percent of the mothers had right weaning practices. The findings the above table shows that 43.7 percent of the new dietary practices, followed by 32.5 percent of mothers knew the management of diarrhea.

DOI:10.46376/GNJI/5.I.2022.408-413

ISSN Print: 2581-8546 ISSN Online: 2582-2934

SECTION IV:

Association between Knowledge and Practice Score

n = 100

	No. of subjects	Min	Percent		SD	95% Confidence Interval for Mean		t-value	df	p-value
			Max	Mean		Lower Bound	Upper Bound			
Knowledge	20	24	81	52.05	5.619	45.31	58.79	0.072^{NS}	33	p>0.943
Practice	15	27	73	53.26	3.295	42.10	61.23			

Inference: * - Significant **NS - Non- Significant**

This study shows that the mean ± SD of score was observed Knowledge score was 52.05 ± 5.619 and Practice score was 53.26 ± 3.295. The difference in knowledge and practice score however is not statistically significant (t=0.072 at p>0.943 level). It indicates that there is no difference in Knowledge and Practices among mothers of under five children regarding prevention of protein energy malnutrition.

CONCLUSION

This study was conducted to assess the knowledge and practices among mothers of under five children regarding prevention of protein energy malnutrition with a view to develop an information guide sheet for mothers. In this study descriptive survey design was used by taking 100 samples using Purposive Sampling Technique at the selected area of Visnagar Gujarat, Data was collected by using self-prepared structured interview schedule. Data was analysed and interpreted by applying respective statistical methods. The conclusion of the study was drawn on the basis of major findings which are as follows:

- Majority of the respondents were in the age group of 19-30 years and all were Hindus. Most of them were housewives and had studied up to higher primary level and were from the Nuclear Family background.
- Highest percentage of respondents had a family income of less than Rs. 3000 per month.
- Overall mean knowledge score among respondents was found to be 52.05% on prevention of protein energy malnutrition, indicating higher knowledge on the aspects of signs and symptoms of protein energy malnutrition.
- Overall mean practice score among respondents established with 53.26 percent indicating better practice on the aspect of breast feeding practices.
- Higher the age lesser the knowledge noticed which established significant association between age and knowledge level. Higher the education level better the knowledge found which is supported by significant association between education and knowledge level.
- Respondents of joint family showed higher knowledge than others which in turn established significant association. Higher the family income results with better knowledge assessment among respondents resulting with significant association between family income and knowledge level.
- House wife group respondents had slightly better knowledge than others which in turn established statistical significant association.
- In the age group of 21-30 respondents showed right practices than others which in turn established significant association. Higher the educational level better is the practice results with significant association between education and age level.
- Better practice is observed among housewives than employed however, showed slightly significant findings. Respondents of joint family had better practice. However association between type of family and practice indicated Non-significance.
- Income group between Rs. 5000 and above of respondents had better practice compared to counterparts but statistically the result was to be found Non-significant. Sources of health information of respondents also established Non-Significant association with practice aspect on prevention of protein energy malnutrition.
- Overall observation showed that existing knowledge and practice is found around 52.89 percent on

DOI:10.46376/GNJI/5.I.2022.408-413

prevention of protein energy malnutrition. The enhancement in both knowledge and practice is very much required.

REFERENCES :

1. https://pubmed.ncbi.nlm.nih.gov/1879910/
2. https://www.ajol.info/index.php/eamj/article/view/9203/2123
3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607807/
4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6405113/
5. https://www.science.gov/topicpages/h/hospital+karachi+chk
6. https://pubmed.ncbi.nlm.nih.gov/9493847/
7. https://www.researchgate.net/publication/329808389_Factors_associated_with_stunting_in_Dodoma_Region_Tanzania
8. https://www.nin.res.in/annualreports/AR12-13_final.pdf
9. https://www.researchgate.net/publication/237669274_Risk_factors_for_severe_acute_malnutrition_in_children_under_the_age_of_five_A_case-control_study
10. http://www.fao.org/3/ca9692en/CA9692EN.pdf
11. https://pubmed.ncbi.nlm.nih.gov/11316392/
12. https://scielo.isciii.es/pdf/eg/n19/en_clinica4.pdf
13. https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/
14. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812877/
15. https://www.researchgate.net/publication/332395863_Practices_among_mothers_regarding_breastfeeding_and_it's_determinants_a_study_in_an_urban_population_of_Kashmir
16. https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-019-0208-y
17. https://www.who.int/health-topics/breastfeeding
18. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4682591/
19. http://southcampus.uok.edu.in/Files/Link/DownloadLink/RM%20U1%20P1.pdf

DOI:10.46376/GNJI/5.I.2022.408-413