



A study to assess the effectiveness of information booklet on knowledge regarding protein energy malnutrition among mothers of under-five children at selected rural area of Banaskantha, Gujarat

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Abstract

Background: Protein energy malnutrition (PEM) is a major public health problem in India. This affect child at the most crucial period of time of development, which can lead to permanent impairment in later life. PEM is measured in term of underweight, stunting (low height for age) and wasting (low weight for height).

Methods: this study included the Quantitative research approach, pre-experimental one group pre-test post-test research design. 80 Mothers of under-five children were selected by using Non-probability Convenient Sampling technique. On first day pre- test was done by using the Self-administered questionnaire, Explain about Protein energy malnutrition. On 7th day post-test was done by using Self-administered questionnaire, to check the effect of planned teaching program on knowledge regarding Protein energy malnutrition among the mothers of under-five children. The data obtained were analyzed and interpreted by using both descriptive and inferential statistical in terms of frequency, percentage, and chi-square.

Results: The knowledge regarding Protein Energy Malnutrition among Mothers of under-five children was assessed. The 'z' value 16.02 is significantly higher than the table value 1.96 at 0.05 level significance. This indicates that there was a difference in the pre-test and post-test knowledge score of respondents and the Information Booklet is effective in improving the knowledge score of mothers of under five children, hence the H₁ hypothesis was proved and accepted. There is an association between post- test knowledge score with selected Socio-demographic variables; hence the research hypothesis (H₂) is accepted.

Conclusion: This study concludes that there is improvement in the level of knowledge of mothers of under five children which indicate that the Information Booklet is effective.

Keywords: Assess, effectiveness, information booklet, knowledge, protein energy malnutrition, mothers of under five children

Introduction

Proteins are one of the most amazing group of molecules in the human body. They are complex combinations of smaller chemical compounds called amino acids. These are like the bricks or building blocks of a building. It is a component of every cell in your body^[1].

Children are future of society and mothers are guardian of that future, foremost, health, safety and nutrition for the young child is written on behalf of young children everywhere. Ultimately, it is the children who benefit from having parents who understand and know how to protect and promote their safety and well-being by knowing regarding nutrition^[2].

The term protein energy malnutrition applies to a group of related disorders that include marasmus, kwashiorkor, and intermediate states of Marasmic kwashiorkor. Marasmus involves inadequate intake of protein and calories and is

termed "the sickness of the weaning" with no oedema^[3].

The reasons for malnutrition are include poverty, lack of nutritious food, and inadequate intake of food, improper infant, and child feeding, among others. Malnutrition is a complex phenomenon, and it is both the cause and effect of poverty and ill-health and follows a cyclical, inter-generational pattern^[4]. It is not only an important cause of childhood morbidity and mortality, but also leads to permanent impairment of physical and possibly, of mental growth of those who survive. It is the direct cause of about 3, 00,000 deaths per year and is indirectly responsible for about half of all deaths in young children. The risk of death is directly correlated with the degree of malnutrition^[5].

Overall, PEM is a serious condition that can have long-term effects on health and development, particularly in children. Early detection and intervention are important in preventing and treating this condition^[6].

Materials and Methods

Research design and Setting: Pre-experimental one group pre-test post-test research design was selected for this study.

Sample, Sample Size and Sampling Technique

The samples selected for the present study are Mothers of under-five children. The sample size were 80. The non-probability convenient sampling techniques was used to select the sample. A 80 sample of Mothers of under-five children were selected from selected rural area of Banaskantha, Gujarat.

Data Collection Tool and Technique

Demographic data Consist of selected socio-demographic variables such as Age of mother in year, Educational status of mother, Type of family, Occupational status of mother, Total number of under five children in family, Monthly income of the family, Type of food consumption, Do you have any information about Protein Energy Malnutrition. This section consists of 08 items.

Structured knowledge questionnaire on Protein Energy Malnutrition among Mothers of under-five children. This section consists of 25 items on selected aspects of Protein Energy Malnutrition. Each item had one or more correct answers all of which were scored. Each correct answer was

given a score of ‘one’ and wrong answer ‘zero.’ The total score was 25.

Results

Organization and presentation of the data the collected data was entered in a excel master sheet for tabulation and statistical processing. The data were analysed and interpreted using descriptive and inferential statistics based on the objectives and hypothesis formulated for the present study.

The findings are presented under the following headings:

Section A: frequency and percentage distribution of socio-demographic variables.

Section B: Distribution of respondents by Pre-test and Post-test level of knowledge regarding the effectiveness of Information Booklet on knowledge regarding Protein Energy Malnutrition among mothers of under five children.

Section C: Effectiveness of the information booklet.

Section A: Frequency and percentage distribution of Socio-demographic variables. N =80

Table 1: Frequency and percentage distribution of socio-demographic variables

Sl. No.	Demographic Variables	Frequency	Percentage	
1	Age of the mother in Years	18-22	10	12.50%
		23-27	23	28.75%
		28-32	29	36.25%
		Above 32	18	22.50%
		Total	80	100%
2	Type of Family	Nuclear Family	33	41.25%
		Joint Family	38	47.50%
		Extended Family	9	11.25%
		Total	80	100%
3	Educational status of mother	Non formal education	18	22.50%
		Primary education	38	47.50%
		Higher Education	19	24%
		Graduate and above	5	6.25%
	Total	80	100%	
4	Occupational Status of Mother	House Wife	15	40%
		Business	10	35%
		Government Employee	25	15%
		Private Employee	30	10%
		Total	80	100%
5	Total Number of under five children in family	One	28	35%
		Two	36	45%
		Three and above	16	20%
		Total	80	100%
6	Monthly income of the family	Below Rs.10000	13	16.25%
		Rs.10001-Rs.15000	27	33.75%
		Rs.15001-20000	19	23.75%
		Above Rs, 20,000	21	26.25%
		Total	80	100%
7	Type of food consumption	Vegetarian	42	52.50%
		Non -Vegetarian	27	33.75%
		Eggetarian	11	13.75%
		Total	80	100
	Do you have any information about Protein Energy Malnutrition Total	Yes	29	36.25%
		No	51	63.75%
		Total	80	100

Age of mother in year: most of the respondent i.e.36.25% belonged to the age group of 28-32 years, 28.75% respondent belonged to age group of 23-27, 22.50% belonged to the above 32 and 12.50% belonged to age group of 18-22 years of age.

Type of family: most of respondent i.e., 47.50% belonged to Joint family, where 41.25% respondent belonged to nuclear family and rest of 11.25% respondent belonged to extended family.

Educational status of mother: most of respondent i.e. 47.50% belonged to primary education, 24% respondents belonged to Higher education, 22.50% respondents belonged to non-formal education and rest of 6.25% respondents belonged to Graduate and above.

Occupational status of mother: most of the respondent i.e.40% belonged to the house wife, 35% respondent belonged to the business, 15% respondent belonged to the government employee and rest of 10% respondent belonged to the private employee.

Total Number of under five children in family

Most of respondent are i.e., 45% of the respondent have two children, 35% respondent have one child, 20% respondent have three and above children.

Monthly income of the family

Most of the respondent i.e. 33.75% belonged to the Rs.10001-15000 monthly income, 26.25% belonged to the above Rs. 20,000 monthly income, 23.75% respondent belonged to under Rs. 15001 – 20,000 monthly incomes, and 16.25% respondent belonged to below Rs. 10,000 monthly incomes.

Type of food consumption

Most of respondent i.e. 52.50% belonged to Vegetarian, where 33.75% respondent belonged to Non -Vegetarian and rest of 13.75% respondent belonged to Eggetarian.

Any information about Protein Energy Malnutrition

Most of the respondent i.e., 63.75% belonged to No, and 36.25% respondent belonged to Yes.

Table 2: Distribution of respondents by Pre-test and Post-test level of knowledge regarding the effectiveness of Information Booklet on knowledge regarding Protein Energy Malnutrition among mothers of under five children.

Level of knowledge	Score	Frequency		Percentage	
		Pre-test	Post- test	Pre-test	Post-test
Inadequate knowledge (0-33%)	0-8	54	00	67.50%	00
Moderately knowledge (34-67%)	9-17	20	22	25%	27.50%
Adequate knowledge (68-100%)	18-25	06	58	7.50%	72.50%
Total	25	80	80	100%	100%

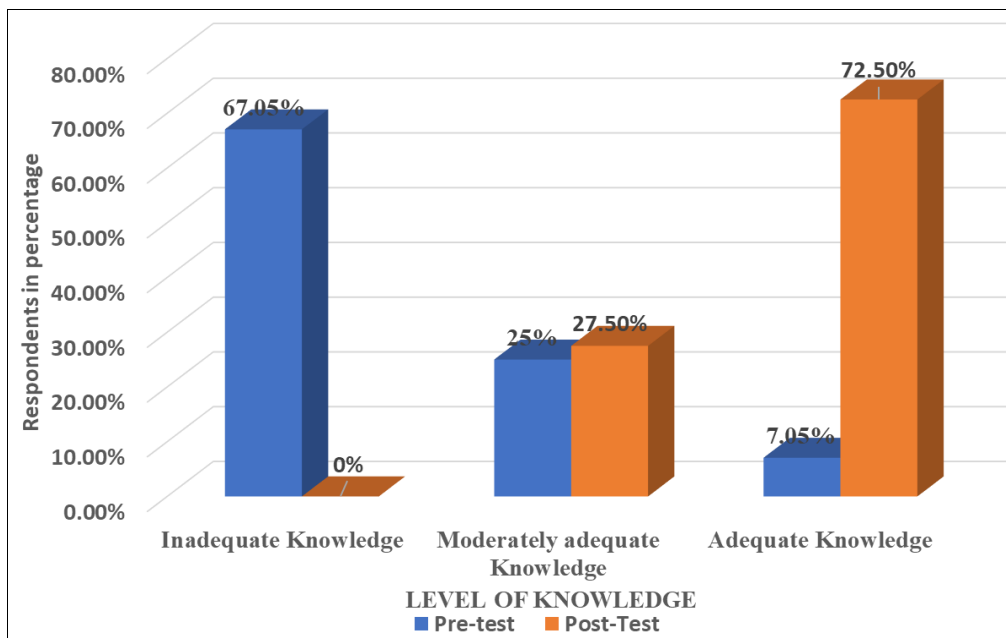


Fig 1: Level of knowledge

Table 02 and figure 01: Depicts the Pre-test and Post-test knowledge level of mother of under five children. The result shows that in pre-test 7.50% of the respondents had adequate knowledge, 25% had moderate knowledge, and 67.50% had inadequate knowledge and in post-test 72.50% had adequate knowledge, 27.50% had moderate knowledge

and 0% of the respondent had inadequate knowledge regarding Protein Energy Malnutrition among mother of under five children.

Section C: Effectiveness of the information booklet N-80

Table 3: Effectiveness of the information booklet

Knowledge	Mean	Mean %	SD	Enhancement	Enhancement %	Df	Z-Value	Inference
Pre-test	9.07	33.28	5.68	9.62	33.44%	78	17.62	Significant
Post-test	18.69	66.72	3.74					

Table 03: The result showed that the mean post-test knowledge score is 17.96 (71.84%) is greater than the mean pre-test knowledge score 8.07 (32.28%). The above table also depicts that the enhancement in the knowledge of respondents is 9.89 (39.56%) supporting the post-test knowledge score are higher than the pre-test knowledge score. The data further represent that the 'z' value 16.02 is significantly higher than the table value 1.96 at 0.05 level significance. This indicates that there was a difference in the pre-test and post-test knowledge score of respondents and the Information Booklet is effective in improving the knowledge score of mother of under five children

H1: There is a significant difference between the pre and post-test knowledge score of mother of under five children. A hypothesis was tested at 0.05 levels. The calculated 'z' value 16.02 is significantly higher than the table value 1.96 at 0.05 level of significance. This indicates that there is a significant difference between pre-test and post-test knowledge score, hence the H1 hypothesis was proved and accepted.

The chi-square test was carried out to determine the association between the post-test knowledge and socio-demographic variables such as Age of mother in year, Educational status of mother, Type of family, Occupational status of mother, Total number of under five children in family, Monthly income of the family, Type of food consumption, Do you have any information about Protein Energy Malnutrition.

Out of which Age of mother in year $\chi^2=19.36$, Educational status of mother $\chi^2= 16.89$, Type of family $\chi^2= 10.55$, Occupational status of mother $\chi^2= 22.87$, Total number of under five children in family $\chi^2= 16.35$, Type of food consumption $\chi^2= 18.07$, Do you have any information about Protein Energy Malnutrition $\chi^2= 9.01$ were found to be significant associated with post-test knowledge score at 0.05 level, hence research hypothesis H2 was accepted.

H2: There will be significant association between post-test knowledge regarding Protein energy malnutrition among Mothers of under-five children of rural community with selected socio demographic variables.

Conclusion

Study concluded that information booklet was significantly effective in improving knowledge among Mothers of under-five children regarding Protein Energy Malnutrition

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Conflict of Interest

Not available

Financial Support

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