Original Article

ASSESSMENT OF KNOWLEDGE OF MOTHERS OF UNDERFIVE CHILDREN ON NUTRITIONAL PROBLEMS: A RURAL COMMUNITY BASED STUDY

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ABSTRACT

Introduction: Good nutrition is the fundamental basic right for the maintenance of positive health. Nutritional problems like protein energy malnutrition, anemia, vitamin A deficiency iodine deficiency and obesity continues to plague large proportion of under-five children in India.

Objectives: To assess the knowledge regarding the common nutritional problems of under-five children and its prevention among mothers.

Method: This cross sectional descriptive study was conducted to assess mothers of under-five children residing at rural community area. Mothers were selected through Non probability convenient sampling.The data was collected using a pretested structured questionnaire.The data was analysed using SPSS version 16 and the results expressed as proportions

Results: A total of 50 underfive mothers were included in the study. Of the mothers surveyed, Knowledge about underfive nutritional problems and its prevention was reported to be nearly half of the mothers 27 (54%) had poor knowledge, around 19 (38%) had average knowledge, and only 4 (8%) had good knowledge regarding the common nutritional problems and its prevention. Mothers had poor knowledge on underfive nutritional problems and its prevention. None of the mothers had very good knowledge.

Conclusion: A significant number of mothers were unaware of the prevention and management of underfive nutritional problems. So, frequent health education campaigns should be conducted in the field of child nutrition.

Keywords: Underfive children, Nutritional problems

INTRODUCTION

Children are the most important segments for a nation for the optimal physical, mental, emotional development of its future worthy citizens.[1] A nation's health depends on the healthy citizen. A healthy adult emerges from a healthy child.[2] Nutrition of the under-five children is of paramount importance because the foundation of our life time health, strength and intelligence vitality is laid during this period[3].

Good nutrition is the fundamental basic right for the maintenance of positive health.[4] A proper diet is essential from early stage of life children below age of five year constitute over 20% of our population and also form a most vulnerable group. The foundation of good health and sound mind are laid during this period of life.[5]

The word nutrition means 'the process of nourishing or being nourished,' especially the process by which a living organism assimilates food and uses it for growth and replacement of tissues. 'Nutrients are substances that are essential to life which must be supplied by food.[6]

Nutritional problems like malnutrition, anemia, vitamin A deficiency iodine deficiency and obesity continues to plague large proportion of under-five children in India. [7]

India is home to 40% of worlds malnourished children and 35% of developing world low birth weight infants (IFPRI 2008). Every year 2 million children die in India (UNICEF 2009), accounting for one in five child death in the world. According to global Hunger Index (GHI) developed by IFPRI, India ranks 117th of 119 countries in child malnutrition.[8]

Children are future of society and mothers are guardian of that future, Knowledge of mothers has an important role in the maintenance of nutritional status of the children. Hence to ensure sound foundation and secure future of any society health and nutrition of their children needs protection.[12]By this above background, which highlighted the importance of mothers knowledge regarding common nutritional problem of underfive children. This study was conducted to assess the mothers of under-five children knowledge regarding common nutritional problems and its prevention.

METHODS

This cross sectional study was undertaken in Kotekar rural community of Mangalore, with the approval from the District Health Officer, Mangalore and Institution Ethical committee. The study consisted of 50 underfive mothers within the age group of 20-40 years. Mothers were selected by Non-probability purposive sampling. The participants were briefed about the nature of the study, consent was given and a pre-tested structured questionnaire was administered to them. Data that recorded include general data comprised of age, religion, occupation, education status, type of family, family monthly income and source of information on nutritional problems and its prevention. The information pertaining to the pattern of nutrition problems, causes of nutrition problems, clinical features of nutrition problems, prevention and management of nutrition problems were included in the questionnaire.

RESULTS

A total of 50 mothers were selected by non probability purposive sampling, of whom 19 (38%) belong to the age group of 20-25 years and a least of 3(6%) were 36-40 years. Most of the mothers were belonging to Hindu 26(52%). Depending on occupation 33(66%) were housewives and 2(4%) were private employees.

Table 1: Description of demographic characteristics of mothers of under-five children

Demographic variables	Mothers (N=50) (%)
Age in years	
20-25	19 (38)
26-30	16 (32)
31-35	12 (24)
36-40	3 (6)
Religion	
Hindu	26 (52)
Muslim	21 (42)
Christian	3 (6)
Occupation	
Government Employee	5 (10)
Private Employee	2 (4)
Self Employee	10 (20)
House Wife	33 (66)
Educational Status	
No formal Education	8 (16)
Primary Education	12 (24)
Secondary Education	24 (48)
Graduation	6 (12)
Type of family	
Nuclear	30 (60)
Joint	19 (38)
Extended	1 (2)
Family monthly income in Rupees	
< 3000/	10 (20)
3000-5000/-	24 (48)
5000-10,000/-	11 (22)
>10,000	5 (10)
Source of information	
Mass Media	29 (58)
Friends and Relatives	7 (14)
Health Professionals	9 (18)
No Information	5 (10)

Nearly 24(48%) of mothers had completed their secondary education, 12(24%) and 6(12%) have completed their graduation. Based on family 30(60%) of them belong to nuclear family. 24(48%) have their monthly income of Rs 3000-5000 and 5(10%) had more than Rs 10000. The most common source of information about nutritional problems and its prevention was mass media 29 (58%) while 10% had no information.(Table 1)

Table 2 : Distribution of knowledge level among mothers

Level of knowledge	Scores	Mothers (n=50) (%)
Poor	0-10	27 (54)
Average	11-16	19 (38)
Good	17-20	4 (8)
Very good	>21	0 (0)
Overall		50 (100)

Table 3 depicts the level of knowledge of mothers, nearly half of the mothers 27 (54%) had poor knowledge, around 19 (38%) had average knowledge, and only 4 (8%) had good knowledge regarding the common nutritional problems and its prevention. None of them had very good knowledge.

Area-wise mean score percentage on knowledge regarding common nutritional problems and its prevention among mothers had highest mean percentage 41% (2.46±1.20) in the area of knowledge regarding causes of nutritional problems, 40.77%(5.3±2.30)basic concepts of nutritional problems. 34% (2.04±1.12) clinical features of nutritional problems and prevention and management of nutritional problems had 34.67% (1.04±0.88) (Table 3).

Table 3: Description of area-wise mean, standard deviation and mean percentage of knowledge score

Aspects of knowledge	Mean score	Max score	SD	Mean%
Basic concepts	5.3	12	2.30	40.77
Causes of nutritional problems	2.46	5	1.20	41.00
Clinical features of nutritional problems	2.04	3	1.12	34.00
Prevention & management Causes of nutritional problems	1.04	2	0.88	34.67
Total	10.84	22	3.68	38.71

Table 3: Association of knowledge with selected demographic variables of adolescents (n=50)

Sample characteristics	≤ median	> median	χ^2 value	df	p value
Age in years					
20-25	9	10	4.09	3	7.82
26-30	6	10			
31-35	5	7			
36-40	3	0			
Religion					
Hindu	14	12	2.52	2	5.99
Muslim	7	14			
Christian	2	1			
Educational Status					
No formal Education	3	5	2.73	3	7.82
Primary Education	9	13			
Secondary Education	9	5			
Graduation	2	4			
Type of family					
Nuclear	14	16	0.87	2	5.99
Joint	9	10			
Extended	0	1			
Family monthly income in Rupees					
< 3000/	6	4			
3000-5000/-	11	13	1.27	3	7.82
5000-10,000/-	4	7			
>10,000	2	3			
Source of information on nutritional problems and prevention					
Mass Media	10	19	3.84	3	7.82
Friends & Relatives	4	3			
Health Professionals	6	3			
No Information	3	2			

NS* Not significant, S* significant, χ^2_1=3.84, χ^2_2=5.99, χ^2_3=7.82; p< 0.05

The chi square values of demographic variables like age, religion, education, occupation, type of family, family monthly income, source of information regarding common nutritional problems and its prevention were not significant at 0.05 level of significance. There was no

significant association between knowledge score and the selected demographic variables.

DISCUSSION

Childhood malnutrition is a massive crisis caused by a combination of factors including inadequate food intake, childhood diseases, harmful child care practices, low socio economic status, all these contribute to poor health and millions of deaths annually. Malnutrition is like an iceberg, which affects the community both directly and indirectly. The direct effects are the occurrence of frank and subclinical nutritional deficiency diseases. The indirect effects are high morbidity and mortality among young children .Malnutrition is an extremely complex phenomenon with multiple causes, multiple manifestations and is intergenerational.

Our study denoted that there is no significant association between knowledge level of mother and selected demographic variables which is in concordance with other study conducted by Khokar.A in rural area, Tamilnadu. The sample size selected was 68, in which 34 mothers of severely malnourished children under four years of age were selected as experimental group and 34 mothers of well-nourished as control group. Purposive sampling technique was used. The result revealed that the knowledge level of control group was higher (59%) when compared to experimental group. Finally the researcher concluded that the knowledge of mothers has an important role in the maintenance of nutritional status of the children. There is no significant relationship between the level of knowledge and demographic variables.[10]

Mishra RSK et al[11] did a similar study and the result reveals that about 65% of mothers had low knowledge, 15% had average knowledge, 20% had high knowledge. And more than half of mothers were illiterate. The researcher concluded that Protein energy malnutrition is a significant public health problem. Thus implementation of appropriate health awareness program and improvement in socioeconomic condition improving nutritional status.[11]

CONCLUSION

The present study has found that mothers had poor knowledge on underfive nutrition problems and its prevention. A significant number of mothers were unaware of the prevention and management of underfive nutritional problems. The knowledge level of the mothers can be empowered with essential health information. This again emphasizes the need to strengthen IEC activities.

The limitations of this study included the absence of a comparative group, the small sample size and the absence of interventions like providing information regarding prevention and management of nutritional problems

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