

ORIGINAL ARTICLE

Nutrition related practices of mothers of under-five children

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ABSTRACT

Background: Childhood nutrition; a term which rings the bell in everyone's mind especially the mothers of a child. Good nutrition for a child is a fact that cannot be denied for a healthier growth of a child. Individual families or communities have their own practices and belief and their own choices regarding their dietary practices. **Aims & Objectives:** The objectives of the study were to assess the nutritional knowledge of mothers of under-five children, assess the nutrition related practices of mothers of under-five children and develop multicomponent program for mothers of malnourished children. **Methods & Material:** An exploratory survey was carried out among 146 mothers of malnourished children. The instruments used were socio-demographic profile, knowledge questionnaire on Nutrition of children and structured questionnaire on Nutrition related practices of mothers. **Results:** The results revealed that 129 (88.3%) mothers had average knowledge. About 71 (48.6%) mothers had moderately adequate practices and 51 (35%) had inadequate practices regarding nutrition for children. **Conclusion:** Mothers knowledge and dietary practices they adopt for their child has an invariable effect on their nutritional status.

KEYWORDS

Nutrition, Knowledge, Practices, Multicomponent program, Under-five children

INTRODUCTION

Adequate nutrition in the early phase of a child's life has a significant importance, as during the first five years of life growth and development happens to be at its peak. Thus, providing appropriate nutrition to a child should be a priority of mothers or primary caregivers.

World Health Organization describes nutrition as "the intake of food, considered in relation to the body's dietary needs" and good nutrition is a key determinant of health. If food intake doesn't balance body's dietary needs it leads to malnutrition.(1) Malnutrition in any of its forms poses threat to health of human. Double burden of malnutrition is faced today globally and most affected are low- and middle-income countries.(2)

India tops the chart in prevalence of underweight among children in the world and about double than Sub-Saharan Africa.(3) As per NFHS-4 (2015-16) prevalence of underweight, stunting and wasting was 35.7%,38.4%,21% and data from fifth round of NFHS-2019-21 showed that out of 22 states survey only nine showed decline in stunting, 10 in wasting and six in underweight children.(4)

Statistical data of malnutrition has not improved in our country inspite of so many government-initiated programs running and adding to the angst India has lost about 4% of its GDP tackling this problem.(5) Hence, the substantial merit in understanding this problem is by giving importance to the factors relating to child malnutrition. This will help the policy makers in redirecting the interventions and reducing the status of malnutrition in children.(6)

Multitude of policies or programs developed till now have failed in signifying the existing knowledge and practices of the caregivers of malnourished children.(7,8) Although the mother is the principal care giver, she may not be the sole decision maker for her child. Her knowledge and practices regarding nutrition for her child is influenced by cultural beliefs and practices, elders in the family and their experiences, her own experiences and her observations. Thus, it is very imperative to explore mothers' knowledge and their nutrition related practices.

Therefore, the researcher explored knowledge of mothers and their nutrition related practices. After finding the need to improve mothers' knowledge, the researcher designed an educational package comprising of various components related to child nutrition considering the feasibility and acceptability to mothers and families. The objectives of the study were to:

1. Assess the nutritional knowledge of mothers of under-five children
2. Assess the nutrition related practices of mothers of under-five children
3. Develop multicomponent program for mothers of malnourished children.

MATERIAL & METHODS

An exploratory survey was conducted as a part of the mixed method design of the study among 146 mothers of children (1-3) years identified malnourished in the first phase of the study.(9) Purposive sampling technique was adopted for the study. The data was gathered from selected rural villages of Haldwani block, Uttarakhand.

The instruments used for the present study consisted of: Socio-demographic profile, Knowledge questionnaire on Nutrition of children and Structured questionnaire on nutrition related practices of mothers. The tools were developed by the researcher and was given to experts for content validation followed by which pre-testing of tool was done. The reliability for knowledge questionnaire was established by split half method ($r = 0.80$) and for nutrition related practices was established by test-retest method ($r = 0.74$). The questionnaire developed to assess knowledge mothers consisted 28 multiple choice questions in following areas: malnutrition, minor deficiency diseases and nutrition rich diet, feeding and importance, complementary feeds, management, prevention and complications and utilization of health services. Total score of tools was 28 which was categorized into good (above 20), average (10–20) and poor (below 10). The tool used to assess the nutrition related practices of mothers was structured five-point Likert scale. It had following responses: daily (5), four to five times (4), two to three times (3), once (2) and never (1). The tool consisted of following areas: feeding practices, eating practices, cooking practices and hygienic practices. The total items in the tool were 26 with total score of 130, categorized into adequate (above 104), moderately adequate (66–30) and inadequate practices (below 65).

Data was analyzed by using statistical software SPSS-22. Ethical permission was obtained from institutional review board of ethical clearance from Swami Rama Himalayan University (SRHU/HIMS/E-I/2019/92). Administrative permission was obtained from child

development project officer, Haldwani and Gram Pradhan's of villages under study. Informed consent was obtained from mothers of children identified malnourished before recruiting them in the study.

RESULTS

Socio-demographic Characteristics:

Out of 146 mothers, maximum 78 (52.2%) mothers were in age group of (26-30) years. Majority 106 (71%) mothers were literate and about 124 (83.2%) fathers were literate. Mostly 100 (67%) mothers had non-vegetarian diet. (Table 1)

Table 1: Socio-demographic characteristics of Mothers $n = 146$

Sample Characteristics	Frequency (%)
Age of Mother (in years):	
Less than 20	04 (2.7)
21 – 25	51 (35)
26 – 30	75 (51.3)
31 – 35	13 (9)
Above 35	03 (2)
Education of Mother:	
Literate	106 (72.6)
Non formal	05 (4.7)
Primary	19 (18)
Jr. High School	11 (10.3)
High School	17 (16)
Intermediate	19 (18)
Diploma	27 (25.5)
Graduate	05 (4.7)
Post Graduate	03 (2.8)
Illiterate	40 (27.4)
Education of Father:	
Literate	124 (85)
Non formal	19 (15.3)
Primary	32 (25)
Jr. High School	12 (9.7)
High School	15 (12)
Intermediate	09 (7.3)
Diploma	25 (20)
Graduate	07 (5.7)
Post Graduate	05 (4)
Illiterate	22 (15)
Type of diet:	
Vegetarian	46 (31.5)
Non vegetarian	100 (68.5)

* Part of the table presented

Mothers knowledge regarding Child Nutrition

It was found that majority 129 (88.3%) mothers had average knowledge, 6 (4%) had good knowledge and 11 (7.5 %) had poor knowledge regarding nutrition of children [Figure 1]. Also, domain wise knowledge level of mothers regarding nutrition shows that mean knowledge score was 13.80 ± 2.92 . The mothers had less than 50% knowledge in weaning and feeding, food sources and health services [Table 2].

Nutrition related Practices of Mothers

About 71 (48.6%) mothers had moderately adequate practices, 24 (16.4%) mothers had adequate practices and 51 (35%) had inadequate practices regarding nutrition for children [Figure 2]. Domain wise pre-test nutrition related practices of mothers shows that mean practice was 78.33 ± 16.47 . The mothers had less than 55% knowledge in feeding and eating [Table 3].

Figure 1. Bar diagram representing knowledge level of mother's n =146

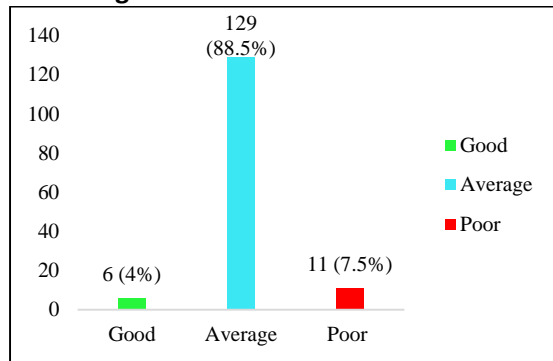


Figure 2 Bar diagram representing nutrition related practices of mothers n = 146

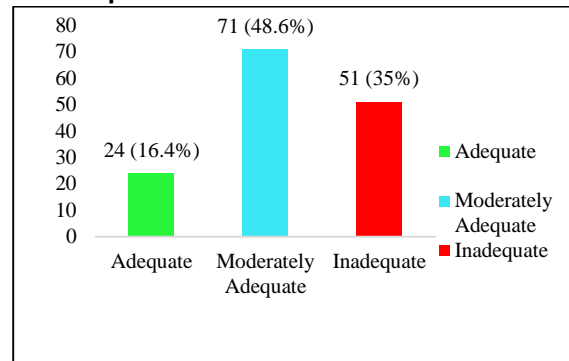


Table 2: Domain wise knowledge level of mother's n =146

Knowledge Domains	Good	Average	Poor	Maximum Score	Mean + SD	Mean %
	f /%	f / %	f / %			
Malnutrition, causes and Balanced diet	22	87	37	6	3.25 + 1.19	54
Symptoms and deficiencies	27	92	27	5	2.50 + 1.12	50
Weaning and feeding	19	98	29	5	2.35 + 1.03	47
Food sources	21	97	28	8	3.80 + 1.41	47.5
Health services	38	59	49	4	1.90 + 0.95	47.5
Total	-26	-40		28	13.80 + 2.92	

Table 3: Domain wise pre-test nutrition related practices of mother's n = 146

Nutrition related practices areas	A	MA	IA	Maximum Score	Mean + SD	Mean %
	f /%	f / %	f / %			
Feeding & Eating Practices	3	62	81	90	48.33 + 11.89	53.7
Cooking practices	44	96	6	25	18.48 + 3.73	73.92
Hygienic practices	53	93	0	15	11.88 + 2.07	79.2
Total	-36.3	-63.7		130	78.33 + 16.47	

Development of Multicomponent Program:

In order to develop Multicomponent Program was developed by the researcher after analysing the data regarding nutritional knowledge and related practices of the mothers, discussed with the nutritionists and co-supervisors in the study. Further, thorough review of published literature was done(10), nutritional status and factors contributing to malnutrition were explored as part of the study(9), Focused group discussion was conducted among mothers(11), guidelines

given by ICMR (e-Poshan Abhiyan Module)(12) was incorporated and certificate course was done in Child Nutrition and Child care.

DISCUSSION

The present study highlighted the level of knowledge and nutrition related practices of mothers of malnourished children in selected geographical area. It was found that maximum 78 (52.2%) mothers were in the age group of (26-30) years and about 100 (67%) mothers had non- vegetarian diet. The findings of the

present study were found to be similar to study done by Yadav S.S et al., (2016) who reported that maximum mothers 614 (81.9%) participating in the study were in the age group of (25-35).(13) Similarly, Renuka Manjunath et al., reported that mean age of mothers participating in the study were of 23.98±3.62 years.(14) It was found that majority 129 (88.3%) mothers had average knowledge and the findings were in agreement with study by Misha et.al, where it was found 18 (40%) mothers had poor knowledge, 15 (33.3%) had average knowledge and 12 (26.7%) had good knowledge about malnutrition and its prevention.(15) Similarly another study by Patali reported consisted findings.(16)

The results also found that 71 (48.6%) mothers had moderately adequate practices and 51 (35%) had inadequate practices regarding nutrition for children. The identified practices were comparable to a study done by Manohar.(17)Another study also revealed similar study findings.(18)

Mothers being the primary care givers are at the best person to prevent the nutrition related deficiencies in their children by early identification and prompt intervention. But to due inadequacy in their knowledge and inappropriate practices, most of them fail to do so. But then, developing intervention packages at as per their level of understanding and feasibility of acceptance can make things better for children. Thus, the present study developed multicomponent intervention program (FBIP) for mothers. The need for development of intervention in order to build capacity of mothers/primary caregivers has been emphasized in previous studies.(19-22)

CONCLUSION

Malnutrition; a problem which is being faced by many developing and underdeveloped countries of the world can only be countered by focusing on providing good nutrition for children. A mother or primary care giver plays a very important role in planning the food choices for a child and their beliefs and practices in choosing the food for a child eventually affects the health of a child. Hence,

it is really important for a mother or a primary care giver to have adequate and updated knowledge regarding food choices that are important for a child's health and overall growth.

AUTHORS CONTRIBUTION

All authors have contributed equally.

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Nil

CONFLICT OF INTEREST

There are no conflicts of interest.

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DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/ AI assisted technologies in the writing process.

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