

Nutrition Related Knowledge among Mother Having Primary School Going Children

Md. ABUL HOSSAIN¹

PhD (Research Fellow), Jahangirnagar University

Md MONOARUL HAQUE

Chief Researcher, DPRC Hospital & Research Center, Bangladesh

Most. ROKSHANA PARVIN

MPhil (Research Fellow), Jahangirnagar University

Md RUHUL AMIN

Assistant Professor, SAIC Group Medical Institutions

PRADIP KUMAR SAHA

Assistant Professor, National Institute of Traumatology & Orthopedic

Rehabilitation

Mst. NADIRA PARVIN

Lecturer, Northern University of Bangladesh

JAKIR HOSSAIN BHUIYAN MASUD

Consultant, UNICEF

Abstract:

Background: Mothers' perfect nutrition knowledge plays an important role of their children health issue. Malnutrition is the burning problem among the infants and young children. Infants in their early life are completely dependent for their nutritional requirements on their parents both in terms of quality and quantity.

Objective: The aim of this study was to assess nutrition related knowledge level among mother having primary school going children.

Methods: This was a cross sectional descriptive study with a sample size of 300. The samples were selected purposively on the basis of inclusion and exclusion criteria. A pretested semi structured questionnaire was used to collect data and consent was taken prior interview. SPSS version 11.5 was used to analyze data. **Result:**

¹ Corresponding author: dr.abulhossain76@yahoo.com

*Majority of them 171 (57%) was in 28-32 years age group. Most of the respondents (94%) had perfect knowledge on balance diet. It was found that most of the respondents (98%) answered correctly on knowledge about blindness prevention. More than ninety percent respondent gave correct answer about blood forming foods. It was also found that 94% respondents answered correctly about knowledge on beneficiary food for gum and tooth. Besides 98% respondent gave correct answer on knowledge about effect of bare footed toilet use and 1% answered both ulcer in legs and other disease. On the other hand, all of the total respondents answered correctly that anemia as an effect of malnutrition. Association between knowledge on balanced diet and education of mother was statistically significant ($p=0.001<0.05$). **Conclusion:** Overall knowledge regarding nutrition among study subjects was not satisfactory and further large scale study is needed to precise result.*

Key words: Nutritional awareness, Mother, Primary school children

Introduction

Nutritional status of today reflects a healthy and productive generation in future. Especially for pre-school children, nutritional condition is a critical factor for optimum growth and it should neither be inadequate nor excessive. Improved nutrition and health enhance the learning ability of children. In the long-run it leads to an increase in the strength of the labor force and thereby it contributes positively for the economic growth. Thus, good nutrition is essential for healthy, thriving individuals, families and a nation.¹ The cascading effects of childhood malnutrition include diminished immune functioning; which leads to greater susceptibility to infection, especially gastrointestinal and respiratory infections; which leads in turn to increased child mortality. Even mild to moderate malnutrition significantly undermines a child's health and chances of survival. A moderately underweight child has a five times higher risk of dying of diarrhea and a four

times higher risk of dying of respiratory infections and malaria compared to a child with normal weight. Other consequences are decreased growth and development; including cognitive development.² Nutritionally educated mothers can bring up their children in a healthier way. Improving breastfeeding techniques not only provide adequate nutrition to the infant but can also decrease the frequency of gastroenteritis and respiratory infections and reduce the number of infant deaths.³ The value to child nutrition of interventions that seek to enhance mothers' nutrition knowledge has been recognized for decades. Widely cited is the example of the World Bank's first community nutrition loan to Indonesia in the 1970s which significantly improved the nutritional status of 40 percent of target children through nutrition education alone; that is, without the transfer of any other tangible resources (Berg 1987; Andersen 1994). While the techniques used and message content vary widely across programs, recent evaluations of interventions communicating specific nutrition information continue to report positive impacts around the world.⁴

Methodology

Type of study: It was a descriptive type of cross sectional study

Study Population: The mother having primary school going children in Dhaka City

Study Area: Different primary and kindergarten school in Dhaka City.

Study Period: The duration of the study was four months and conducted from May through August, 2011.

Sampling Technique: Sample was selected purposively to interview the study population considering the inclusion and exclusion criteria.

Selection Criteria:

Inclusion Criteria

- Those who gave consent and participate for interview
- Mother having primary school going children

Exclusion Criteria

- Refusal to give informed consent

Data collection procedure: Face to face interview of mother using a semi-structured questionnaire regarding the objective of the study. After taking verbal consent from the respondents (mother) data was collected from respondents.

Data Collection Instruments: An interviewer-administered semi-structured questionnaire was designed to collect information related to nutritional awareness that was prepared in advance and evaluate by the principal supervisor before data collection.

Data Management and Analysis: After collection of data, all responses checked for their completeness, correctness and internal consistency in order to exclude missing or inconsistent data. Corrected data was entered into the computer. The data was analyzed by using the statistical software namely SPSS (Statistical Package for Social Science). Data analysis was done according to the objectives of the study. P-value more than 0.05 was considered insignificant.

Ethical Issues:

- Permission from ethical review committee of University of South Asia

- Prior permission and inform written consents was taken from each respondent.
- Privacy and Confidentiality of each respondent was maintained.

Limitations of the Study

- It was very difficult to conduct interview with mothers having young baby
- Female patient especially exhibited apathy to provide information
- Due to time and budget constraints required sample size was not collected.

Results

The Socio-demographic characteristics of the respondents (n=300)

Variables	Frequency	Percentage
Age in year		
Up to 27	42	14.0
28-32	171	57.0
33-38	60	20.0
>39	27	9.0
Religion		
Muslim	288	96.0
Hindu	9	3.0
Christian	3	1.0
Education		
Illiterate	3	1.0
Primary pass	3	1.0
Class Ten	24	8.0
SSC pass	60	20.0
HSC pass	51	17.0
Degree	75	25.0
Masters	84	28.0
Occupation		
House wife	282	94.0
Service	9	3.0
Business	9	3.0
Income in BDT		
<11000	39	13.0
11000-25000	111	37.0

26000-35000	78	26
>35000	72	24
Total	300	100

Table 1 showed socio-demographic characteristics. Majority of them 171 (57%) was in 28-32 years age group followed by 60 (20%) was 33-38 years group, 42 (14%) was up to 27 years group, and 27 (9%) was in 39 years and above group. It was found that most (96%) of the respondents were Muslim. According to educational qualification, 84 (28%) respondents had master degree followed by 75 (25%), 60 (20%), 51 (17%), 24 (8%) were degree, SSC, HSC, Class ten passed respectively and 1% respondent was both in illiterate and primary level of education. Most of the mother (43.8%) was house wife as well as 9 (3%) was both business and service holder. Among the respondents 111 (37%) were in Tk. 11000-25000 income level group followed by 78 (26%) were in Tk. 26000-35000, 72 (24%) were in Tk. 36000 and above and 39 (13%) were in Tk. Up to 10000.

Distribution of the respondents by knowledge on various nutrition related issue (n=300)

Variables	Frequency	Percentage
Knowledge balance diet		
All element in same quantity	282	94.0
Food like vegetable	9	3.0
Food like vitamin	9	3.0
Knowledge on blindness prevention		
Vitamin A	294	98.0
Vitamin C	6	2.0
Knowledge regular bowel movement		
Fibrous foods	264	88.0
Fish	27	9.0
Other	9	3.0
Knowledge on blood forming food		
Vitamin enriched food	15	5.0
Iron food	285	95.0
Knowledge on gum and tooth		
Vitamin A	18	6.0

Md. Abul Hossain, Md Monoarul Haque, Most. Rokshana Parvin, Md Ruhul Amin, Pradip Kumar Saha, Mst. Nadira Parvin, Jakir Hossain Bhuiyan Masud- **Nutrition Related Knowledge among Mother Having Primary School Going Children**

Vitamin C	282	94.0
Knowledge on bare footed toilet use		
Helminthiasis	294	98.0
Ulcer in legs	3	1.0
Others	3	1.0
Knowledge on effect of malnutrition		
Anemia	300	100.0
Knowledge on immunization		
Yes	279	93.0
No	6	2.0
No response	15	5.0

Most of the respondents (94%) had perfect knowledge on balance diet and only 3% answered both vegetable and vitamin a balance diet. It was found that most of the respondents (98%) answered correctly on knowledge about blindness prevention and only 2% gave incorrect answer. It was found that most of the respondents (88%) gave correct answer on knowledge about regular bowel movement. Followed by 9% answered fish and 3% gave other foods. More than ninety percent respondent gave correct answer about blood forming foods and only 5% respondents gave incorrect answer. It was also found that 94% respondents answered correctly about knowledge on beneficiary food for gum and tooth and 6% answered incorrectly. Besides 98% respondent gave correct answer on knowledge about effect of bare footed toilet use and 1% answered both ulcer in legs and other disease. On the other hand, all of the total respondents answered correctly that anemia as an effect of malnutrition.

Association between having knowledge on balance diet and education of mother

Variables	Education of mother						p-value*
	Graduate mother		Non graduate mother		Total		
	No.	%	No.	%	No.	%**	
Having knowledge on balance diet							0.001
Having knowledge	126	89.4	156	98.1	282	94.0	
No knowledge	15	10.6	3	1.9	18	6.0	

Chi-square test was done

Association between knowledge on balanced diet and education of mother was statistically significant ($p=0.001<0.05$).

Discussion

The present study found that the mean age of the mothers was 31.98 year. Khattak AM et al⁵ found that the mean age of the mother was 28.5 years and Kumkum Kumari⁶ found that families with single child had the highest percentage of normal children (44.4%) which is consistent with present study. According to educational qualification of the mother, present study that 25% graduate, 17% higher secondary pass, 20% secondary pass, 8% class ten only 1% both primary and illiterate. Omena Ahmed⁷ found that 11.8% graduates, 11.8% intermediate, 29.4% secondary, 35.3% primary, and 11.8% illiterate. This difference in education indicated that as a poor county Sudany mothers do not get enough opportunity to educate themselves at different stages of education. The present study found that most of the mothers were house wives by occupation. Omena Ahmed⁷ found that 82.4% mothers were house wives which were similar with the present study. Regarding knowledge of the mothers, it was found that 94%, 98%, 88%, 95% and 94% about balance diet, blindness preventive food, regular bowel moveable food, blood forming food and food that beneficiary for gum and tooth respectively. A study aimed to assess the effect of a nutrition education module on the knowledge, attitude and practices of mothers with undernourished children aged 0 –5 years old on nutrition in Barangay Biayon, Sergio Osmeña Sr., Zamboanga del Norte. Respondents of this study were mothers obtained through convenience sampling. The research design used is the pre and post interventional design. The knowledge, attitude and practices of the respondents were evaluated before and after the nutrition education utilizing a self-administered questionnaire with 25 items on knowledge, 10 items for attitude

and 5 items for practices. Two post-tests were given for the knowledge items, one immediately after the intervention and the other, two months after. Data for knowledge items were analyzed using ANOVA for repeated measures which in summary illustrated a significant increase in the mean scores from post-test 1 to post-test 2. The respondents' attitude on nutrition before the intervention was under the positive spectrum. Using the paired t-test, the mean attitude scores increased after the intervention, implying that the attitudes were strengthened but not significant statistically. Practice items assessed through Wilcoxon Signed Ranks had no improvement. Though the intervention achieved to increase the knowledge of the respondents and strengthen their attitude, it was insufficient to affect practices.⁸ In a study Sub capital East Bogor and Kedungbadak were selected by random proportional from 297 children's to 100 sample which consist of aged 2-3 years old (37 children), 3-4 years old (50 children), and 4-5 years old (33 children). A correlation test of Rank Spearman was applied to test the correlation among variables. Results showed that there were significant and positive relationship among three variables which were family's characteristics (family's income and mother's education) and mother's knowledge. Meanwhile, mother's and fathers educational attainment and family's income had a positive and significant correlation with psychosocial stimulation. The study also found that psychosocial stimulation and mother's knowledge had a significant and positive relationship with child's cognitive development.⁹

Conclusion: Overall knowledge on nutrition among mother was not satisfactory. Further large scale research is needed.

Acknowledgment: The authors express their sincere thanks to all the patients of this study. No external funding was provided for this study.

REFERENCES

- Samanthika E, Jeevika W, Anoma A. Roll of mother alleviating child nutrition: Evidence from Sri Lanka. International Development Research Center (IDRC) [1]
- Ingrid M le Roux et al. Home visits by neighborhood Mentor Mothers provide timely recovery from childhood malnutrition in South Africa: results from a randomized controlled trial. *Nutritional Journal* 2010, 9:56 [2]
- Aziz MK, Shela G, Sidra TM, Jamaluddin. Evaluation of nutritional knowledge of mothers about their children. *Gomal Journal of Medical Sciences* Jan–June, 2007, Vol. 5, No. 1 [3]
- Patrick W, Steven Block. Nutrition Knowledge and Parental Schooling as Inputs to Child Nutrition in the Long and Short Run. *Nutrition Working Paper No. 3* [4]
- Khattak A M, Gul S, Muntaha S T, Jamaluddin. Evaluation of Nutritional Knowledge of Mothers about Their Children. *Gomal Journal of Medical Sciences*, 2007, Vol. 5 (1). [5]
- Kumari K. Differentials of Nutritional Status in School- age Children and the Associated Factors. *Health and Population- Perspectives and Issues*; 2007; 30 (4): 268-277. [6]
- Omema def Allah Eltayeb. Food consumption awareness among mothers of pre-school children In River Nile State Rural areas. *Sudan University of Science and Technology*, January 2010. [7]
- Dulce AD. The effect of a Nutrition Education Module on the Knowledge, Attitude and Practices of Mothers with Undernourished Children aged 0-5 years old on Nutrition in Barangay Biayon, Sergio Osmeñas., Zimboanadel Norte. *Ateneo de Zamboanga University School of Medicine*. April 2005. [8]
- Rahmaulina, Novera D, Hastuti, Dwi. Relation between Mother's Knowledge on Nutrition and Child's Growth

Md. Abul Hossain, Md Monoarul Haque, Most. Rokshana Parvin, Md Ruhul Amin, Pradip Kumar Saha, Mst. Nadira Parvin, Jakir Hossain Bhuiyan Masud- **Nutrition Related Knowledge among Mother Having Primary School Going Children**

Development to Psychosocial Stimulation and Cognitive Development of Children Aged 2-5 Years old. IPB E-Journal. [9]