

Nutrition Education in Primary School Curriculum, its Impact and Suggested Improvement

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Introduction

Bangladesh is a developing country, located in one of the world's most disaster prone natural environment. It exhibits many of the worst symptoms of poverty. For every 1,000 children born, 122 die before their 5th birth day¹. The infant mortality rate is 88 per thousand live births². Only 6.2% preschool age children are nutritionally normal. The prevalence of Vitamin A deficiency is 1.78% and 1.61% among preschool and school age children respectively³. Though Bangladesh is floating on the rich sources of Vitamin A, the intake is less than one third of the recommended daily allowance⁴. Iodine deficiency disorders is another nutritional problem. In a recent national survey, it has been shown that 47.1% of the population have iodine deficiency in Bangladesh⁵.

Illiteracy is a major difficulties in the development process. Less than

half of Bangladeshi children can complete even five years of primary school¹. About 48% leave school before completing the Grade III and 62% before completing the Grade V⁶.

Curriculum is a 'work schedule' or a particular body of courses⁷. Recently it refers to the total school programme of planned or intended learning experiences. It is anticipatory and prescribes the results of instruction⁸.

Nutrition is treated as a part of environmental studies rather than a separate subject, only in class III, IV and V. It has been reported that 17.71% time allocated for environmental studies⁹.

Education in nutrition is seen as being essential at all levels of education specially for primary level¹⁰. Learning based on real life experiences of young learners has great potential in making contribution to acquire basic competencies to cope with demands of daily

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life as well as to encourage creative ability which can make better use of existing resources and thus raise the quality of life¹¹.

Materials and Methods

This study was conducted among 184 students of Grade VI of rural Satkhira, Satkhira district town and Dhaka city. Purposively selected students were interviewed through a questionnaire based on the nutrition education in primary school curriculum during the early 1992. Among the respondents, 121 were boys and 63 were girls. They were 78 from Dhaka city, 54 from Satkhira town and 52 from Kumira - a rural area of Satkhira district.

The contributory factors of nutritional status were studied which covered respondents awareness on selected topics on nutrition, exposure to mass media and educational level of the mothers. These findings are presented in 7 (seven) tables.

Results

The educational level of the mothers of the respondents has shown that 26% were having secondary level, 33% were having primary level and 8.7% were illiterate (Table 1).

Regarding the mass media, 70 (38%) having both television and radio, 23

(12.5%) having only television and 45 (24.5%) having only radio in the family. It was also found that only 31% had kept daily news paper. Again, 75% and 78% respondents knew about food sources and major function of protein respectively. About 46% and 36% did not know about the food sources and major function of the carbohydrate respectively. Further-more, 72% of respondents did not know about the densest energy giving food (Table 2). About the rich sources of Vitamin A, Vitamin C, Vitamin D and Iodine 82%, 74%, 53% and 55% had have the proper idea respectively (Table 3). Almost 99% respondents knew the significance of breast feeding but 31% were ignorant about proper time of weaning. Only 76% knew ORS preparation accurately (Table 4).

The study questionnaire were graded with arbitrary score on each correct answer. The responses were evaluated by marking all the questions. Finally, the scores were graded as 0-32% (Level IV), 33%-44% (Level III), 45%-59% (Level II), and 60% and above as Level I (Table 5).

The city boys performed better (score Level I-71%) than that of district town children (score Level I-42%). Performances of girls students were better (Level I-70.23%) than that of boys (Level I-59.41%).

But it was evident that the boys (Level I-65.38%) performed better in rural areas than that of girls (Level I-38.46%). Even today, the girls are subjected to discrimination which is acute in rural areas affecting their performances in the education life. Maternal literacy level has shown to have positive influence in acquiring nutrition knowledge. Higher the education level of the

mothers higher the score of the respondents. (Table 6).

Mass communication particularly audio-visual materials had a great influence on acquiring nutritional knowledge. Respondents from the family having television and radio (Level I-100%) secured better than those having only radio or television (Table 7). The

Table 1. Distribution of education level of the mothers of the respondents.

Level of Education	No. of Mothers	Percentage
Illiterate	16	8.70
Only can sign	5	2.72
Primary	61	33.15
Secondary	48	26.09
S.S.C.	19	10.33
H.S.C.	10	5.43
Graduate	18	9.78
Post Graduate	7	3.80
Total	184	100%

Table 2. Distribution of responses regarding various foods (N=184)

Questions	Correct response			
	Yes	%	No	%
Food sources of protein	139	75.54	45	24.46
Major function of protein	143	77.71	41	22.29
Food sources of Carbohydrate	100	54.35	84	45.65
Major function of Carbohydrate	117	63.59	67	36.41
Densiest energy giving food	51	27.71	133	72.29

Table 3. Distribution of the respondents regarding various sources of nutrients (N = 184).

Questions	Correct response			
	Yes	%	No	%
Rich sources of Vitamin A	151	82.06	33	17.94
Rich sources of Vitamin C	137	74.46	47	25.54
Rich sources of Vitamin D	97	52.71	87	47.29
Rich sources of Iodine	101	54.89	83	45.11

Table 4. Distribution of respondents regarding feeding practices (N=184)

Questions	Correct response			
	Yes	%	No	%
Significance of Breast feeding	182	98.91	2	1.09
Proper time of weaning	127	69.02	57	30.98
ORT preparation	140	76.09	44	23.91

Table 5. Distribution of scores of the respondents on nutritional knowledge (N = 184).

Score	Kumira		Satkhira town		Dhaka City	
	Boys	Girls	Boys	Girls	Boys	Girls
0-32% Level IV	-	1 (3.85%)	1 (2.78%)	-	-	-
33% - 44% Level III	-	2 (7.69%)	7 (19.44%)	1 (5.55%)	4 (6.78%)	-
45% - 59% Level II	9 (34.62%)	13 (50%)	13 (36.11%)	4 (22.33%)	13 (22.05%)	-
60%-above Level I	17 (65.38%)	10 (38.46%)	15 (41.67%)	13 (72.22%)	42 (71.19%)	19 (100%)
Total	100%	100%	100%	100%	100%	100%

Table 6. Distribution of knowledge score in relation with mothers' educational level.

Level of Education	No. of mothers	0 - 32% Level IV	33% - 44% Level III	45% - 59% Level II	60%- above Level I
Illiterate	17	1 (5.88%)	1 (5.88%)	9 (52.95%)	6 (35.29%)
Only can sign	2	-	1 (50%)	1 (50%)	-
Primary	63	1 (1.59%)	10 (15.87%)	21 (33.33%)	31 (49.21%)
Secondary	46	-	3 (6.52%)	15 (32.61%)	28 (60.87%)
S. S. C.	23	-	-	3 (13.04%)	20 (86.96%)
H. S. C.	9	-	-	-	9 (100%)
Graduate	17	-	-	1 (5.89%)	16 (94.11%)
Post Graduate	7	-	-	1 (14.29%)	6 (85.71%)
Total	184	2	15	51	116

Table 7. Distribution of knowledge score of the respondents having television and radio (N=184)

Score	Possession			
	Television and Radio	Only Television	Only Radio	No Radio and No Television
0-32% (Level IV)	-	-	-	2
33% - 44% (Level III)	-	7	6	1
45% - 59% (Level II)	-	2	25	25
60% - above (Level I)	70	14	14	18

daily newspaper have no role on the children in acquiring nutritional knowledge. It may be due to the lack of inappropriate presentation of messages to the children.

Discussion

It is evident from this study, the overall nutritional knowledge among the primary school passed children was not sound. It is clear that there are differences in the performances of city, town and rural children on the outcome of their nutritional knowledge. The relationship of mothers' educational level and influence of various communication media have also been revealed by this study.

So, to overcome the existing situation, proper dissemination of nutritional knowledge is utmost necessary from early life of education. In class I & II the absence of nutrition oriented topic in the curriculum may be mentioned here. The words and pictures of nutritious food items should be included for introducing alphabets and numerals in Bangla, Mathematics and English for the beginners. Nutrition oriented rhymes, poems, stories both in Bangla and English should be focussed in the text. Again, various mathematical problems should be put depicting proper dietary behaviour.

The existing expository and lecture type teaching strategy should be changed including arrangement of proper training of the teachers on nutrition teaching methodology.

The curriculum should be made practical and demonstration oriented like school gardening of fruits and vegetables as well as development and use of appropriate teaching materials to make the learning an interesting one. Periodic households visit in the neighbouring community to expose the students with prevailing dietary practices and with locally produced nutritious agricultural products may be added.

Finally, it must be pointed out that in addition to improvement of curriculum and teaching methodology; motivation and interaction between teachers-students-parents are needed to make the children as well as the community in a desirable nutritional habits - which is a vital necessity to protect the 'today's children and tomorrow's Bangladesh'.

Summary

To ascertain nutritional Knowledge, a total of 184 Grade VI school children were interviewed through a questionnaire based on primary school curriculum. It was evident

from the study that the Dhaka city children performed better than rural children. However, 'the performances were better among the boys in rural area and girls in city area. Mothers' education level and exposure to mass media like television and radio had positive influence in acquiring more nutritional knowledge.

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