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Original Article

Prevalence of Malnutrition in the Rural Community

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Abstract

This was a cross sectional type of descriptive study which was conducted in four villages of Puthia Upozila of Rajshahi district. A preformed interview schedule was used to collect data from a purposively selected sample of 518 respondents. The study revealed that 42.9% children had 1st degree malnutrition, about 19.5% children had 2nd malnutrition and 1.7% had 3rd degree malnutrition. The mean age of the children was 3.45 ± SD 1.33 years. Out of 518 respondents 74.7% had monthly income of Tk. 5000/- or less and 25.3% respondents had monthly income of Tk. 5001/- and above. The mean monthly was Tk. 5039/- ± SD 3869.36.Undernutrition was more in female children (70.1%) than male children (51.2%). In large family size under nutrition were more (68.4%) in comparison to small family size (61.4%). The study would be helpful in future community survey on nutritional status of under five children and in formulating effective national nutrition health program and facilitating their effective implementation.

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Introduction

Nutrition has been defined as "a pathological state resulting from a relative or absolute deficiency or excess of one or more nutrients"[1]. Under nutrition is highly prevalent among the children throughout the world. It is estimated that 48% children in Bangladesh are under weight. In South East Asian countries one half of pre-school children found to be moderate to severely malnourished. The findings indicate that under five children are the worst victims of malnutrition in most of most of the countries.

Malnutrition has both direct and indirect effects on the community. Among the direct effects are kwashiorkor, marasmus, vitamin and mineral deficiency diseases. The indirect effects are a high morbidity and mortality among young children, retarded physical and mental growth and development, low level of vitality of the people leading to lowered productivity and reduced life expectancy[1].Infection is highly prevalent among the under nourished population. The probability of occurrence of infection is directly related to the level of immune status of the individual. In this country nutritional deprivation of the growing children starts at the weaning age specially in low birth weight babies which is the outcome of maternal malnutrition during pregnancy[8].

Malnutrition is the outcome of interactions of human activities and the condition needs to be explained as a problem with multidimensional perspectives. It is related to culture of the society, socio-economic factors, food production and

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health care services. Poverty and injustice play vital role in development of under nutrition among the children of developing countries. Malnutrition is the by product of poverty, ignorance, inadequate education, lack of knowledge regarding nutritive value of foods, poor sanitary environment and large family size. Since malnutrition is the outcome of socio-cultural as well as economic and health factors, the problem can be solved through intersectional co-ordination and multisectoral approach. The malnutrition rate was found to be substantially higher among female children than among male children[7]. For individual countries, malnutrition's total potentiating effects on mortality ranged from 13% to 66%, with at least three-quarters of this arising from mild-to-moderate malnutrition in each case[9]. Although the prevalence of childhood malnutrition in Bangladesh has fallen substantially from 68% in the late 1980s to 41% in 2007, the rate of decline is not sufficient to achieve the UN millennium development goal target (prevalence of 34% by 2015).[16]

Objectives

General objective-

- To find out the prevalence of malnutrition in the rural community.

Specific objective-

- To explore types of malnutrition in the community.
- To determine socio-economic correlation.

Methodology

This was a cross sectional type of descriptive study which will provide information on prevalence and socio demographic correlation of nutritional problems. The study was out in four villages of Puthia Upozila. The study was conducted on 518 respondents having children of 1-5 years old. Non random purposive sampling technique was adopted. Face to face formal interview with the help of preformed interview schedule was used to get information. After collection of data necessary coding and editing were done and finally data were analyzed through SPSS program.

Results

Table-1: Socio-demographic parameters of the respondent

Age of the mothers in group	Frequency	Percentage
15-24 years	264	51
25-39 years	245	47.3
40 years and above	9	1.7
Total	518	100
Educational status of mother	Frequency	Percentage
Literate	426	82.2
Illiterate	92	17.8
Total	518	100
Occupation of mother	Frequency	Percentage
Service holder	13	2.5
Farmer	1	.2
Day labourer	1	.2
Housewife	495	95.6
Business	4	.8
Unemployment	1	.2
Others	3	.6
Total	518	100
Monthly family income	Frequency	Percentage
Tk. 5000/- or less	387	74.7
Tk. 5001/- 10000/-	107	20.7
Tk. 10001/- and above	24	4.6
Total	518	100

Table-2: Information about child

Age in groups	Frequency	Percentage
1-3 years	295	56.9
4-5 years	223	43.1
Total	518	100
Gender of the child	Frequency	Percentage
Male	287	55.4
Female	231	44.6
Total	518	100
Vaccination of the child	Frequency	Percentage
Yes	509	98.3
No	9	1.7
Total	518	100

Weaning practice	Frequency	Percentage
Correct weaning	282	54.4
Incorrect weaning	236	45.6
Total	518	100

Table-3: Frequency distribution of the respondents by mother's education and nutritional status

Mother's education	Nutritional status of the children in group			Total	
	Normal	Under nutrition	Overweight		
Primary	44	108	20	172	33.20
Secondary	53	145	24	222	42.86
Higher secondary	5	8	7	20	3.86
Graduate	1	7	4	2	0.38
Illiterate	20	64	8	92	17.76
Total	123	332	63	518	100

Discussion

A population based cross sectional study was conducted in four villages of Puthia Upozila under Rajshahi district to estimate the prevalence of nutritional status of the under five children by using a preformed interview schedule. In the present study among the 518 study population only 23.7% were normal and the rest 76.3% suffered from various malnutrition problems.

Regarding frequency distribution of mothers by age, the study showed that most of the mothers in the study area were within suitable age group between 15-24 years (51%) and also a very good number of mothers were within age group between 25-39 years (47.3%) and a very few mothers belonged to 40 years and above (1.7%) (Table-1).Mean age of the mother was 25 ± SD 4.91.

Majority of the mothers (82.2%) were literate. It indicates that the village people are now well realized about the need of female education (Table-1).

Most of the mothers (95.6%) were housewives in the study area and it was also revealed that very few were engaged in other occupation (Table-1). It indicates that in rural areas most of the married women are found to be housewives and not engaged in any formal income generating activities. This is a very common feature all over Bangladesh.

Regarding monthly family income it was revealed that majority of the families (74.7%) had monthly income with an amount of Taka 5000/- or less. About 4.6% families had monthly income more than Taka 10000/- and above (Table-1). Mean monthly family income was Taka 5040/- ± SD 3869/-. The results indicate that most of the respondents belonged to low income group. In rural Bangladesh, majority of the people live in a poor economical condition which ultimately affects nutritional condition of the children.

It was found that 56.9% children were in the age group of 1-3 years and the rest 43.1% in the group of 4-5 years (Table-2). There is no remarkable age difference about prevalence of malnutrition.

Regarding gender distribution of the children it was found that 55.4% were male and 44.6% were female. It is evident that malnutrition is more common among female than male which mimic the result of other researchers[9].

Regarding relation between mother's education and nutritional status of the children there is a significant association ($p< 0.05$) (Table-3).

Conclusion

Nutritional problems are important public health problem in our country. The findings are comparable to the results of other researchers. Nationwide nutritional health program and community based approaches should be effective for alleviating the grave situation of nutritional problem of under five children in the country.

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