

Determinants of Disease Pattern and Related Behaviour of Under-Five Children in Rural Areas

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Abstract

Introduction: The causative factors of childhood mortality and morbidity are multiple. In the rural areas, most of the parents seek traditional rather than modern medical facilities. They seek treatment when symptoms get worse.

Objective: To find out the pattern of morbidities and health seeking behaviour of under five children. In order to achieve the goal it was focused on some of the key factors that may be closely related with the pattern of morbidities and treatment seeking behaviour.

Materials and Methods: This was a cross sectional descriptive study conducted from 15 October 2014 to 15 March 2015 in Mohishashi village of Dhamrai Upazila, Dhaka District and Balihati village of Saturia Upazila, Manikganj district. Sample size was 350, obtained by non-probability, purposive sampling technique. The study was conducted by using a verbal questionnaire which was semi-structured close-ended in nature and a measuring tape for Mid Upper Arm Circumference (MUAC). The people of some purposively selected villages were taken as sample, so the results can not be generalised for the rural communities of Bangladesh.

Results: The findings revealed that the majority (62%) of the children became ill at least 3 times a year. Cough and cold were most common symptoms in 315(58.01%) cases. Varieties of healthcare facilities are available in the community, among those hospital/clinic had been availed most often which account to 277(65.95%). Amongst study cases, 190(45.23%) cases availed this facility due to effective and safe treatment and 181(43.09%) due to easy availability of health care service. The immunization status of

children were 349(99.71%), though 256 (73.14%) children were completely immunized and 93(26.57%) were incomplete due to age constrains or other reason. This study shows that 220 (62.86%) children had not been hospitalized since birth for any reason. Among the admitted children, 74 out of 130 (37.14%) received their treatment from government hospitals after being sick.

Conclusion: This study indicates that the health seeking behaviour of the parents of under five children in Dhamrai and Saturia Upazila is satisfactory. In order to reduce unwanted and unacceptable child mortality it is needed to build a better concept of healthcare in the rural areas.

Key-words: Morbidity, Health Seeking Behaviour, Under-Five Children.

Introduction

The mortality rate of children under 5 stands at an alarming 38 per 1000 live birth in Bangladesh. Malnutrition, pneumonia, diarrhoea, malaria, measles, injuries are contributing to the high rate of child deaths in the country¹. However, it is stated that 8.1 million children aged 0-5 years old die every year from diseases linked to the environments in which they live, learn and play².

Children's development consists of several interdependent domains, including sensory-motor, cognitive, and social-emotional, all of which are likely to be affected due to poverty, poor health, nutrition, and deficiency in care³. Mothers and children constitute the priority group. In sheer number, they comprised approximately 71.14% of the population of

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the developing countries, many of the complex risk factors affect their health and lead to morbidities⁴. The arcane healthcare professional still exist today in the rural areas in the form of many healers, non-allopathic (homeopathic) doctors and allopathic and non-qualified practitioners⁵.

Many children are left to die before the age of five due to common diseases such as diarrhoea, respiratory infections or diseases which are prevented with adequate measures⁶. Bangladesh has shown some improvement as far as child health care is concerned but a long way to go to achieve the minimum nutritional and other health level in children. Despite these improvements there are challenges ahead⁷.

Materials And Methods

This was a cross sectional type of descriptive study and respondents were selected purposively from the mothers having under-five children in a rural community. The study places were Village Mohishashi of Dhamrai Upazila, Dhaka District and Village Balihati of Saturia Upazila, Manikganj district. The study was conducted from a period of six months starting from 15 October 2014 to 15 March 2015. All the rural mothers having under-five children in rural community of selected areas were the study population. Irrespective of age of rural mothers who had under-five children were included in the study. Non probability Purposive sampling was done. Total 350 mothers having under-5 children were interviewed. Non permanent residents of that area and children under 06 months age were not included as sample.

Face to face interview was taken by pretested semi structured questionnaire. The questionnaire was filled up by the researcher during interview. A measuring tape was used as research instrument to have the measuring of Mid Upper Arm Circumferenc (MUAC).

The data were checked, verified and edited daily. After checking and rechecking data was processed by using Microsoft office package program. The frequency range consistency was checked. Data was coded and recorded to create new variables. Accuracy of data was ensured by defining range, limits and valid values of all variable.

Results

Table-I: Educational Status of the Parents of Under Five Children (n =350)

Educational Qualification	Mother		Father	
	Frequency	%	Frequency	%
Illiterate	49	14.34	36	10.28
Class I-V	87	25.42	45	13.71
Class VI-X	122	35.52	127	26.85
SSC equivalent	59	17.42	87	25.14
HSC equivalent	23	6.85	59	17.14
Graduate	3	0.85	23	6.85
Total	350	100	350	100

Table-I shows the majority of the mothers 122 (35.52%) and The majority of the fathers had an educational status between class 6-10.

Table-II: Distribution of the parents by their occupation (n=350)

Occupation	Respondent		Husband	
	Frequency	%	Frequency	%
Housewife /Unemployed	333	95.71	3	0.857
Govt. Service	2	0.571	32	9.14
Private service	2	0.571	58	16.57
Self- employment	4	1.14	146	41.71
Day labourer	3	0.857	32	9.14
Agriculture	6	1.14	79	22.58
Total	350	100	350	100

Table-II shows the distribution of the parents by their occupation. Out of the 350 total respondents, 333 (95.71%) of the respondents were housewives and the majority of the husbands 146(41.71%) were self employed.

Table-III: Monthly income of the family (n=350)

Monthly income in BDT	Frequency	Percentage
<5,000	19	5.42
5,000-10,000	122	34.85
10,001-15,000	127	36.28
>15,000	82	23.54
Total	350	100

Table-III shows maximum, 127(36.28%) of the respondents had a monthly income between 10,001 to 15,000 taka.

Table-IV: Distribution of Mother according to their age at first child birth(n=350)

Age of respondent	Frequency	Percentage
<16	07	02
16-25	245	70
25-35	95	27.14
>35	3	0.85
Total	350	100

Table-IV shows the distribution of mother according to their age at first childbirth and out of the total respondents, 245 mothers (70%) were between the ages of 16 to 25 years of age when they had their first child.

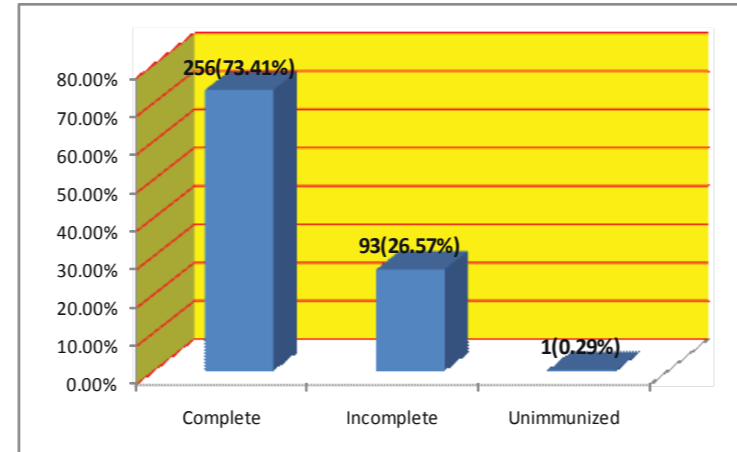


Fig-1: Distribution of immunization status of children(n=350)

Figure-1 shows the immunization status of children was 99.71%. Among them 73.41% children was completely immunized and 26.57% was incomplete and 0.29% was not immunized.

Table-V: Distribution of children according to their Mid Upper Arm Circumference (MUAC)(n=350)

Mid Upper Arm Circumference (cm)	Frequency	%
<12.5	25	7.54
12.5-13.5	160	45.71
>13.5	165	47.14
Total	350	100

Table-V shows the distribution of children according to their mid upper arm circumference and the majority children 165 (47.14%) have mid upper arm circumference more than 13.5 cm.

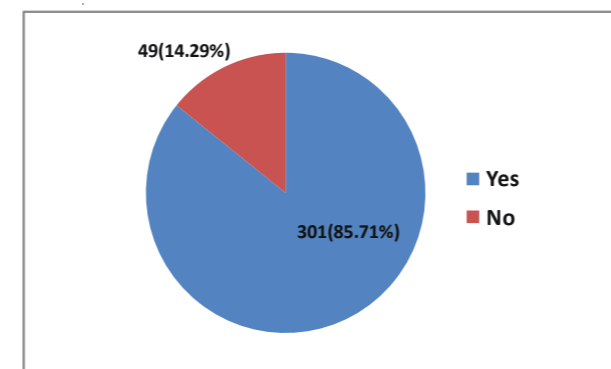


Fig-2: Distribution of children suffering from any illness in the last 3 months(n=350)

Table-VI: Distribution of pattern of illness of the child(n=301)

Type of Illness	Frequency	Percentage
Cough and Cold	315	58.01
Common Fever	150	27.62
Diarrhoea	65	11.97
Skin Disease	01	0.184
Injury/Accident	08	1.473

Table-VI shows that majority (58.01%) of children had been suffered from cough and cold.

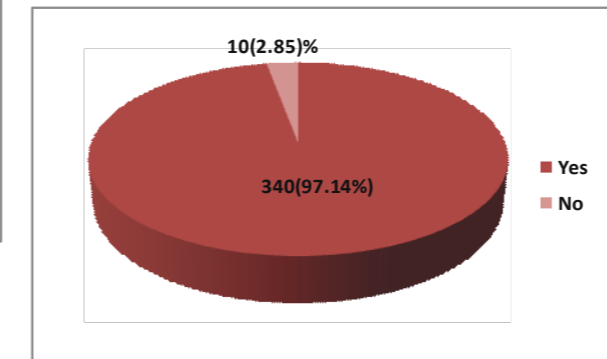


Fig-3: Distribution of Measures taken for the diseased children (n=350)

Figure-3 shows the measures taken for the diseased children and majority of children 97.14 % received treatment for their illness.

Table-VII: Distribution of reasons for not taking treatment(n=10)

Reason for not taking treatment	Frequency	%
Don't know	2	20
Bad communication	2	20
Treatment cost high	1	10
May get cure without medicine	5	50
Total	10	100

Table-VII showed the reasons for which the respondents did not seek any treatment and majority of the respondents 5 (50%) thought that the illness may get cured without medicine.

Table-VIII: Distributions of the respondents by health seeking behaviour for their children(n=350)

Health seeking behaviour	No. of responses	%
General Practitioner	200	40.90
Traditional healer	13	2.66
Traditional medicine	25	5.11
Polli-chikitsok	32	6.54
Pharmacy man (Drug seller)	100	20.45
Homeopath	10	2.04
Hospital/clinic	109	22.29

Table-VIII is a multiple response table which shows the distribution by health care seeking behaviour for their children. The highest 200(40.90%) responses were towards General Practitioner.

Table-IX: Reasons of treatment preferred by the respondents(n=350)

Cause of preference	Frequency	%
Easily available	160	37.83
Effective and safe treatment	135	31.91
Low Cost	55	13.01
Familiar	43	10.17
Suggested by others	30	7.09

Table-IX is a multiple response table which shows the distribution of the respondent by reason for choosing the particular treatment for health care seeking behaviour for their children. The majority responses 160(37.83%) were towards easily available, followed by effective and safe treatment 135(31.91%).

Table-X: Distribution of under 5 children according to frequency of illness.(n=350)

Frequency of illness	Frequency	%
Occasionally (≤ 3 times/year)	217	62
Often (3-6 time/year)	112	32
Frequently (> 6 time/year)	21	6
Total	350	100

Table-X showed frequency of illness of the under 5 children. The majority of the children 217(62%) becomes ill less than 3 times a year.

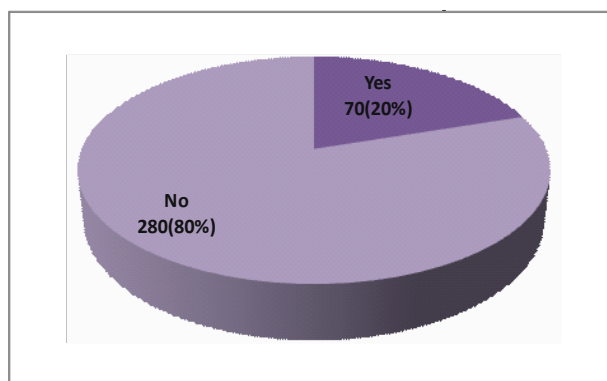


Fig-4: Hospitalization of Children after getting sick (n=350)

Figure-4 showed hospitalization of children after getting sick and most of the children 80% had not been hospitalized since birth for any reason.

Discussion

This descriptive type of cross sectional study was carried out in Dhamrai Upazila of Dhaka district and Saturia Upazila of Manikganj district. A total of 350 mother were selected as sample. As far as the educational status in the household, the average literacy for the mothers and the fathers were mostly found between class VI-X. Among them maximum had an earning level between 10,001 to15,000Tk which was found within the majority of the respondents (36.28%).

This study shows the immunization status of children was 99.71 where 73.41% children was completely immunized and 26.57% was incomplete due to age constrain or any other reason, 0.29% was non immunised. A cross-sectional study was carried out among 1000 children between 10 months to 5 yeras of age in Dhaka Medical College hospital shows that 82.5% of the children were fully immunized and 16.1% were partially and 1.4% were non-immunized which is almost similar with this study⁸.

This study shows the majority children 165 (47.14%) have mid upper arm circumference more than 13.5 cm where 45.71% children had borderline and 7.6% had malnutrition. Another study among 100 under Five children at Agargaon Slum in Dhaka city shows that 43% of children were in border line and 16% were malnutrition⁹. In the entire sample size of the children, 85.71% had been sick in the past 3 months and most common illness being cough, cold and fever clocking at 58.01% of the children. According to the findings, 97.14% of the ill children received treatment. 2.86% respondents did not receive treatment mainly because the parents thought that the illness will get cured without medicine. Majority of the respondents (42.34%) went to General Practitioners to seek treatment for their sick children and most of the respondents responded that they chose this form of health seeking behaviour because it was effective and safe treatment (32.23%). Majority of the children (62.86%) had not been hospitalized after being struck with illness. However, those who were admitted to hospitals, majority of them were admitted into a government hospital (33.43%). Finally according to findings it was deduced that government doctors were the most common health facilities in the community (49.71%).

In a study, data were collected from 1290 under five children in urban area of Dhaka who were taken to any health care provider for febrile illness shown that 41% of care seekers did not seek any health care from trained health care provider. Children from the higher wealth, young infant and male children were more likely to be taken to trained health care providers or certified persons¹⁰.

In this study, 63% went to general practitioners for seeking treatment which is better. The under-five children of this study mostly suffered from cough and cold (58.01%), Common fever (27.62%), and Diarrhoea(11.97%). In Bangladesh, another study showed¹⁰ that the national data on cause of under five children morbidities with one third of the children (30%) treated for cough and cold followed by diarrhoea/dysentery (17%), fever (11%), Pneumonia (9%). In both of the studies it was found that the morbidities by diarrhoea and fever almost similar. Findings of this study are similar to another similar study¹¹. A study in Zambia revealed that diarrhoea and pneumonia were most common morbidities with malnutrition¹².

A study on 3830 children with age range 1 months to 180 months in a hospital of Nigeria shows common indication for admission is malaria 30%, diarrhoea 20% and Acute Respiratory Infections¹³ (ARI) 19%. Though the findings of the developing countries are almost similar but malaria is another threat for African countries.

In this study, 97.14% of the diseased children received some form of treatment, 32.95% went to hospital, and 15.67% sought treatment from pharmacy man. A similar study conducted by Bhuiyan on socio-economic and demographic influence upon the health seeking behaviour of infants, 86% of the neonates received some form of treatment. Majority (69%) of them sought treatment from Homeopaths (31%) and non-qualified allopath (28%). Only 14% of them received modern allopathic treatment.

In this study, hospital (22.9%) and general practitioner (40.90%) and 20.45% people went to Pharmacy man and very few 2.04% went to Homeopath for health related problems. That revealed that the study areas were near by to Upazila Health Complex

and people were more educated and financially solvent that is why their treatment seeking behaviour were better than any other rural community.

Conclusion

This study projects a pen picture about the related cause of morbidities, health seeking behaviour and health status of the under five children. Children under five years mostly suffered from common cold, fever, diarrhoeal diseases, etc. The positive sign regarding the improvement in health seeking behaviour and health facilities is that EPI vaccination has successfully covered almost all children of the study area. The nutritional status (MUAC) of the children in this study was good. Though maximum people received their treatment from trained personnel, but a small quantity of them did not go there due to their ignorance, ineffective communication system and high cost of treatment facilities. The government of Bangladesh is successfully promoting its health care facilities and by doing so received the Millenium Development Goals(MDGs) award in 2010 for reducing child mortality rate. Combined effort is necessary to make a healthy and prosperous Bangladesh where children can bloom with a healthy and shiny smile.

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