

Original Article

Spectrum of Pediatric Diseases at Upozilla Health Complex, Tungipara, Bangladesh

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**ABSTRACT**

Introduction: To understand of the epidemiological trend in the outpatient department (OPD), is important for health care planning, appropriate management allocation & improving existing services facilities. So this study was done to evaluate the disease pattern of children in the OPD at Tungipara, Bangladesh. **Methods & Materials:** This was a descriptive type of observational study. The patient comes to the pediatric OPD from July 1 to December 31, 2017, was analyzed. Face to face interview was done through a semi-structured questionnaire. **Results:** A total of 1002 children were enrolled during this study period. Infant 42%, under five 47% and more than five age 11% of all children. Acute Respiratory tract infection 43% and among them URTI was 54%, LRTI 46%. Acute watery diarrhea (40%) was the most common of GIT morbidities and enteric fever (4%), dyspepsia. For skin problems, allergy and itching were 13.5% also suffered by impetigo, seborrheic dermatitis, and fungal infection. For eye problems, conjunctivitis was a common problem for OPD. It is important to mention that 164 (16%) patients had no diseases whereas they came to assess their health. Female (46%) were less than the male baby and 90% were Muslim. **Conclusion:** The disease frequency of this study will help to understand the depth and pattern of the problem. Multicentric and comparative studies at rural and urban level are important to develop more effective child management strategy.

Keywords: Spectrum, Pediatric diseases, Tungipara.

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INTRODUCTION

Child health in Bangladesh has faced significant challenges largely as a result of poverty, over-burdened healthcare services related to huge pediatric populations. Pneumonia, diarrhea, measles, malnutrition, injuries, drowning and the high number of neonatal deaths, and poor care-seeking behavior, all contribute to the high levels of child mortality^[1]. But in the last few years, Bangladesh has made significant improvements in child health, to reduce child mortality. The status of child health which is reflected by under-five, infant, and neonatal mortality rate in children declined dramatically. Mortality declines are associated with improved coverage of effective interventions to prevent or treat the most important causes of child mortality and with improvements in socioeconomic conditions. Programs to ensure high coverage of vaccine-preventable diseases, treatment of diarrhea and ARIs, implementation of IMCI, and delivery of newborn health interventions, have been crucial to these reductions. Moreover, Bangladesh has been reduced disparities in under 5 mortalities across different regions of the country^[2].

During the last decades, medical recordings have increased dramatically, leading to more awareness of the diseases commonly affecting pediatric age groups, opening a wide entrance to the prevention of possible complications and decrease its incidence. Routinely collected patient information has the potential to yield valuable information about health systems. Hospital morbidity records statistics are considered reliable and used all over the world. Moreover, evaluation of characteristics of children who come in hospitals gives an insight into main medical illness in children and helps us to plan measures to overcome those. Therefore, a review of such information helps to draw attention to the pattern of

childhood illness in the community^[3]. Despite different limitations, the information from this type of study may be useful to formulate the guidelines of disease profile and management in primary health setups like Upozilla Health Complex (UHC). This study was done to identify the prevalence of disease pattern at a grass root level health center in Tungipara, Gopalganj, Bangladesh.

METHODS & MATERIALS

This descriptive study was done at OPD of UHC, Tungipara in Gopalganj, Bangladesh from 1st July 2017 to 31st December 2017. All the children aged 1st day to 18 years attending the OPD for 6 months were included in the study. Exclusion criteria: Poisoning cases and which were referred to secondary or tertiary care hospitals from OPD. +the sample size was 1002 by $n=Z^2pq/d^2$ ($Z=1.96$, $p=50\%$, $q=50\%$ and degree of precision was 3%). Analyzed by SPSS 26 version. Inclusion criteria: i) All the OPD children aged 1st day to 18 years. Data were collected from a face-to-face interview, a semi structured questionnaire, and a checklist. Data extracted on age, gender, duration, locality, and provisional diagnosis. The final diagnosis was based on the presenting clinical features, with or without the results of laboratory tests. Ethical consideration from Bangladesh Society of Epidemiology (BSE).

RESULTS

A total of 1002 children were enrolled during this study period. Among them infant was 42%, under five 47% and more than five years of age was 11% of all children. Female (46%) were less than the male baby and 90% were Muslim.

Most children (43%) suffered from a respiratory problem of the thousand babies. GIT problem was the 2nd highest (19%) suffered illness and skin related problem

was more than 15%. Among all cases, 430 children came to OPD with respiratory morbidities. Among them, URTI was 54% and LRTI was 40%. Bronchiolitis (n-15) was common than bronchopneumonia (n-11). One hundred eighty-nine babies suffered from GIT problem and it was the 2nd highest. Forty-six percent of babies suffered from AWD and enteric fever was 19% of total GIT problem. Generalized itching problem was the commonest (60%)

morbidity of all skin problems. The prevalence of conjunctivitis was 11 at OPD. Children suffered more (n-6) through minor traumatic injury. SAM was more (n-4) than overweight for nutritional status. Four children came with PUO. We found only 2 patients with CP. Only one child came with a congenital anomaly. A single child came with UTI. Seventeen percent (n-167) child required no medicine for their treatment.

Following table shows the pediatric disease profile according to system.

Table-I: Pediatric diseases profile according to system

System wise	Diagnosis	Frequency	Total
Respiratory	URTI	233	430 (43%)
	LRTI	134	
	Broncheolitis	25	
	Pneumonia	11	
	AOM	5	
	RAD	8	
	Mumps	9	
	Measles	4	
	Epistaxis	1	
	CF		
GIT	AWD	87	189 (18.9%)
	Constipation	10	
	Dysentery	4	
	Enteric fever	36	
	Gastroenteritis	16	
	Dyspepsia	22	
	Oral candidiasis	4	
	Jaundice	4	
	Pin worm	3	
	Anal excoriation	3	
	Indigestion	1	
	Skin	Scabies	
Allergic condition		91	
Fungal infection		19	
Impetigo		16	
Seborrheic dermatitis		14	
Eczema		3	
Eye	Conjunctivitis	11	12 (1.2%)
	Epiphora	1	
Surgical	Hernia	1	11 (1.1%)
	Minor trauma	6	
	Abscess	3	
	Other surgical problems	1	
Nutrition	SAM	4	6 (0.6%)

	Over weight	2	
PUO	PUO	4	4 (0.4%)
CNS	CP	2	3 (0.3%)
	Developmental delay	1	
Congenital	Congenital disease	1	1 (0.1%)
Urinary	UTI	1	1 (0.1%)
No disease	No disease	164	167 (16.7%)
	Growing pain	3	
Others	Others	25	25 (2.5%)

DISCUSSION

Within 180 days there 1002 patients were enrolled. All the patients were distributed into three age groups. Infant, under five and more than five age groups, constitute 42%, 47%, and 11% respectively. The majority of the children were under 5 years which is also similar to what has been found in Port Harcourt, Benin, Ilorin, and Abuja (5-8). This could be due to the vulnerability of this age group as a result of incomplete immunity against infections. A male-female ratio of 1.17:0.83 was found in this study. Boys were a bit more affected (54%) than girls (46%). Male preponderance was found in other studies done in Nigeria (9,10). This finding may reflect a gender bias in health-seeking behavior regarding their children (9). But that was not found in this study. Enrolled patients came from 08 upazilla who are surrounding the Tungipara UHC. Eight hundred ninety-eight (89%) of the enrolled patient were due to top ten common diseases like Acute Respiratory tract infection 43%, URTI (54%), LRTI (46%). Acute watery diarrhea (46%), GIT problem other than AWD was 54%, allergy and itching (15.3%) and enteric fever (4%), dyspepsia, impetigo, seborrheic dermatitis, fungal infection, and conjunctivitis. The majority of admissions from AWD and Respiratory illness are also common findings in other hospitals of the country. We have ORT corner, after primary management which patients were severe of them got admitted to the hospital. Diarrhoeal disease, sepsis, pneumonia, and protein-energy malnutrition were the commonest diseases seen in another study. These are similar to what was observed in

Port Harcourt, Benin, Owerri, Imo, Abuja, and Kenya Pneumonia, diarrhea for 41% of annual death globally and 49% in Africa (5, 6, 11-14). The bulk of childhood morbidity and mortality affects mainly children under 5 years of age (14, 15). Several studies in Africa reported infectious diseases as the leading causes of childhood death (16). ARI accounts for about 20% or more than two million deaths, making it the leading cause of death in children aged less than five years (17). In Bangladesh, 90,000 children >1 month die from pneumonia each year. In our study patient from diarrhea is less than the usual number. It is due to awareness development of various anti diarrhoeal programs and home treatment is established in the rural area of Bangladesh.

CONCLUSION

The findings of this study help us to understand pediatric disease pattern of a grass root level health center, which are essential for an effective case-management plan. Preventable diseases still constitute the major cause of morbidity and mortality in our facility and children and their impact on the health of children. Health education on preventive strategies such as exclusive breastfeeding, provision of safe water, completing immunization, improvement in personal hygiene, and environmental sanitation should be disseminated regularly by the media.

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