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Morbidity Pattern among Rural Population in Bangladesh

Dr. Sultana Begum

Associate Professor cc, Department of Community Medicine, Z.H. Sikder Women's Medical College & Hospital, Dhaka, Bangladesh. Contact no: 01715010915,

E mail: *sultanamallick24@gmail.com*

Abstract

This descriptive type of cross sectional study conducted to know socio-demographic profile and morbidity pattern in the outpatient department of Medicine in Upazila Health Complex, Keranigonj, Dhaka, Bangladesh during the period from November to December to 2019 with a sample size of 150 using interviewer administered semi-structured questionnaire employing purposive sampling technique. The study shows that maximum 32% were age group 16 to 30 years and minimum 3% were age group 75 years, maximum 55% were female and 44% were male, maximum 95% were muslim and 63% were married, 54.67% lived in semi paccha house and about 84% were literate among the respondents. Regarding occupation most of the respondents related to business and services respectively 33% and 16.67% and among the respondents 76% had found monthly income more than 10,000 BDT. The study revealed that maximum 97.33% were suffering from illness due to any diseases and among them 66% have investigation report. It was found that loose motion, fever, abdominal pain, cough and chest pain respectively 21%, 20%, 19.33%, 9%, 7% were the predominant complaints of the respondents. Among the respondents maximum had complete blood count (30%), chest X-ray (15%), routine medical examination of urine (13%), and sputum examination (8%). Regarding diagnosis from maximum respondents were diagnosed as gastroenteritis (20%), respiratory tract infections (16%), bronchial asthma (12%), skin diseases (12%), tuberculosis (10%), hypertension (8%) and diabetes mellitus (6%). Majority of the respondents 96.66% were satisfied with the service provided by Upazilla Health Complex. The study of socio-demographic profile and morbidity pattern has significant role to focus the major problems, so that the service providers can prepare themselves, understanding about needs and gaps and take appropriate measures to fight against the diseases of community.

Keywords: Morbidity pattern, Outpatient, Population, Community

Introduction

The Health status of a nation is reflected by their morbidity and mortality patterns. Morbidity and mortality data are important for setting up and implementation of healthcare strategies and for monitoring health care services of the country.

Morbidity refers to having a disease or symptoms of disease or to the amount of disease within a population. It also refers to medical problem caused by treatment. So, Information on the existing disease pattern and health seeking

behaviour is essential to provide need-based health care delivery to any population. Hospital data are mostly obtainable for disease pattern. Community based study can reflect the true picture of the disease pattern in a given community.[1] To understand the major cause for hospitalizations or attending health professionals in rural area of Bangladesh; demographic and clinical data are collected from hospital records of Government provide health care facilities- Upazila Health Complexes at upazila level and through union sub center at union level, through Community Clinics at the grass root level- reflects the pattern of morbidity and mortality pattern of population of Bangladesh where more than 80 % of people live in rural areas.[1,2]

In health care delivery system at upazila level, there are 492 upazila health complexes. The Upazilas are the second lowest tier of regional administration in Bangladesh; consist with 10, 31 up to 50 beded to provide inpatient health care to its population. The Number of 10 beded Upazila Health Complex are 2883, 31 beded Upazila Health Complex are 28883, 50 beded Upazila Health Complex 16000. Total beds of Upazila Health Complexes are 18432 for 164.6 million of Bangladesh (BBS, 2018). It provides outpatient care, primary health care, family planning services and other preventive healthcare services to the population. 8 Each Upazila Health Complex represents 31 % of the government health sector and it provides health care services to a population of about 100,000 to 400,000. [3, 4]

In South Asia, this has one quarter of the global population, but where about half of the population live below the poverty line and has limited access to health care. The member countries of the WHO SEAR bear a disproponionate burden of disease, with 25% of the world's population and 30% of the global disease burden.[5]

In this study the findings showed that gastroenteritis and respiratory tract infections the most reported complaints. Both communicable and non-communicable diseases like bronchial asthma, tuberculosis, urinary tract infections, typhoid, skin diseases, hypertension, diabetes mellitus etc. were listed top among the population. Bangladesh is in the midst of an epidemiological transition where the burden of disease is shifting from a disease profile dominated by infectious diseases, under nutrition, child birth conditions to one increasingly characterized by Non communicable diseases like diabetes, hypertension, stroke , cancer etc. Bangladesh is facing both communicable and non-communicable diseases which are responsible for half of annual mortality and almost half of the burden of diseases.[6]

The study revealed that knowledge about existing disease pattern is essential to provide need based health care delivery to any population. So the attitude of the health provider and patient satisfaction with the treatment play a role in health seeking behavior and lead to decrease the morbidity pattern of diseases in a community .[7]

The overall situation of health care system in developing countries like Bangladesh need to be more appropriate, time oriented, modern and cost effective health services by skilled health professionals to decrease the morbidity and mortality of disease pattern in our country. [8] One of the public health challenges in Bangladesh is therefore to identify vulnerable groups and to provide them with needed preventive and curative health services through primary health care services.[9] Health professionals are still fights to establish vital registration while morbidity surveillance is still in its initial stage. So further in-depth research should be conducted to formulate policy for improvement of overall health system. Actions should be taken by interviews with service providers for better understanding about needs and gaps. Efforts should be taken to increase health related knowledge and skills to facilitate time oriented decisions.[9] To promote and improve the health status and health care facilities among the population of rural area health education is necessary. It is mandatory to increase the number of skilled physicians and surgeons in every sector of health department for providing the modern treatment. The main objective of this study is to explore morbidity pattern among patient attending at outpatient department of Medicine in a selected Upazila Health Complex, Dhaka.

Materials and Methods

This descriptive type of cross sectional study conducted to know morbidity pattern in the outpatient department of Medicine in Upazila Health Complex, Keranigonj, Dhaka, Bangladesh during the period from November to December 2019 with a sample size of 150 using interviewer administered semi –structured questionnaire employing purposive sampling technique. After collection, the data were checked, verified and edited. Compilation and tabulation of data done according to key variables by using calculator and computer. Data were presented by tables and diagrams based on nature of data.

Results

Table-1: Socio-demographic characteristics of respondents (n=150)

Socio Demographic Characteristics	Frequency	Percentage
Age in Years		
01-15	28	18.67
16-30	48	32
31-45	35	23.33
46-60	18	12
61-75	18	12
More Than 75	3	2
Sex		
Male	67	44.67
Female	83	55.33
Religion		
Muslim	95	63.33
Hinduism	55	36.67
Marital Status		
Married	95	63.33
Unmarried	49	32.67
Widow /Separated	06	4
Educational Status		
Illiterate	24	16
Primary	75	50
Secondary	29	19.34
Higher Secondary and above	22	14.66
Occupation		
Business	50	33.33
Agriculture	40	26.67
Housewives	35	23.33
Service Holders	25	16.67
Monthly Family Income		
Less Than 10,000 BDT	35	23.33
10,000-20,000 BDT	40	33.33
More Than 20,000 BDT	65	43.34
Total	**150**	**100**

Types of Residence

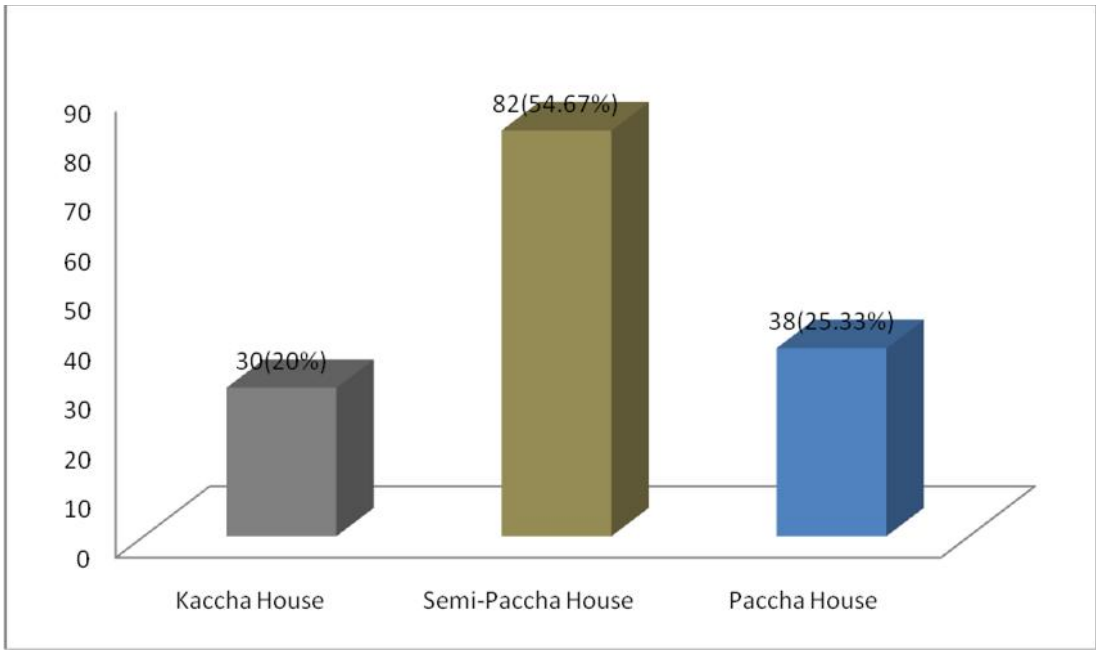

Fig. -1: Bar-diagram showing distribution of respondents by types of residence

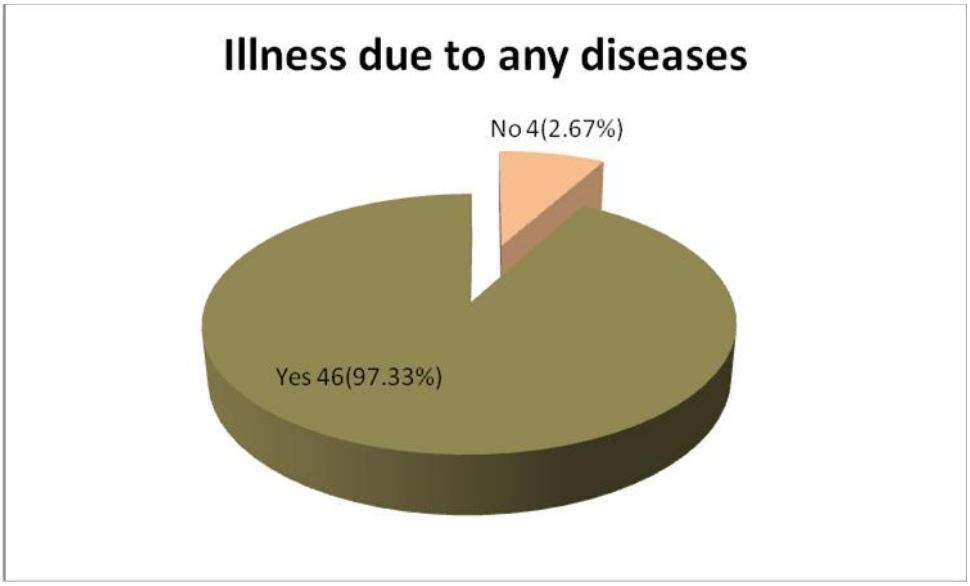

Fig.-2: Pie diagram showing distribution of respondents by illness due to any diseases

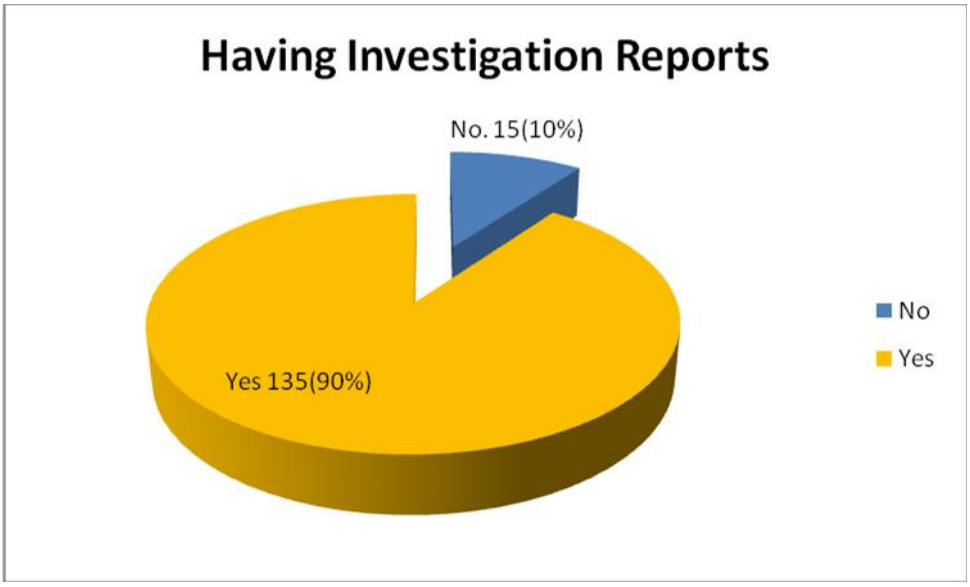

Fig.-3: Pie diagram showing distribution of respondents by having investigation reports

Table-2: Distribution of Respondents by chief complaints (n=150)

Chief Complaints of the respondents	**Frequency**	**Percentage**
1.Loose Motion	32	21.33
2. Fever	30	20
3. Pain	29	19.33
4. Cough	14	9.33
5.Chest Pain	11	7.33
6. Vomiting	10	6.66
7.Skin rash	10	6.66
8.Breathlessness	7	4.66
9. Burning micturation	4	2.66
10.Vertigo	3	2
Total	**150**	**100**

Table-3: Distribution of respondents by name of investigation reports (n=150)

Investigation	**Frequency**	**Percentage**
1.CBC	40	30
2.Chest X-ray	20	15
3.Urine RIMIE	18	13.33
4. Sputum Exam	12	8.88
5. Stool RIE	10	7.40
6.USG	8	6.0
7.Serum Electrolytes	7	5.18
8.RBS	7	5.18
9.ECG	7	5.18
10.Widal Test	6	4.44
Total	**150**	**100**

Table-4: Distribution of respondents by type of disease pattern (n=150)

Disease pattern of the respondents	Frequency	Percentage
1.Gastroenteritis	30	20
2.Respiratory tract infection	25	16.66
3.Bronchial asthma	18	12
4.Skin disease	18	12
5. Tuberculosis	15	10
6.Hypertension	12	8
7.Diabetes mellitus	10	6.66
8.Typhoid	8	5.33
9.Urinary tract infection	8	5.33
10.Peptic ulcer disease	6	4
Total	**150**	**100**

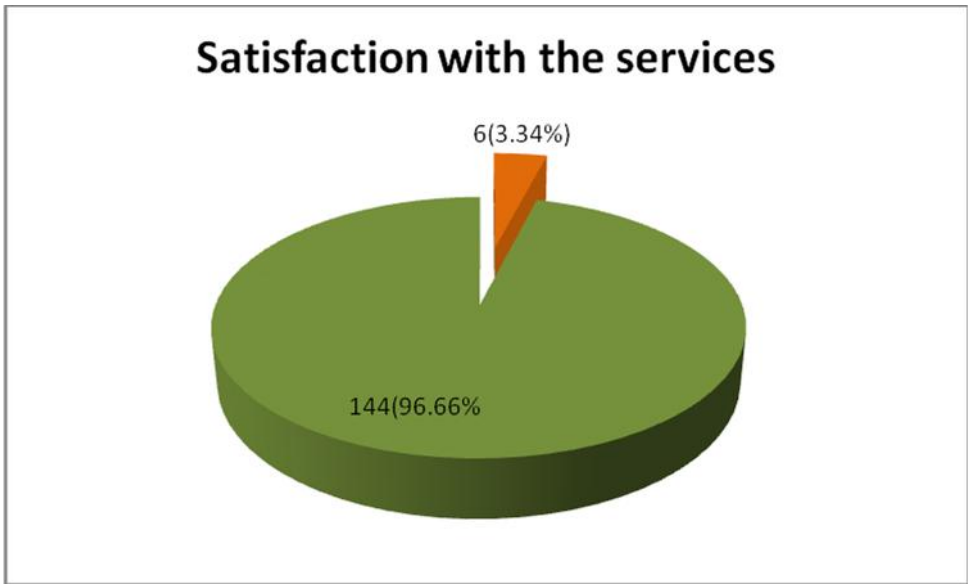

Fig.4: Pie diagram showing distribution of respondents by satisfaction with the services

Discussion

The descriptive type of cross sectional study was conducted among the patients of outpatient department of Medicine in Keranigonj upazilla health complex, Dhaka to explore morbidity pattern among the patients from November to December, 2019 with a sample size 150 employing purposive sampling technique by using semi structured questionnaire and patient documents. The data were obtained through face to face interview of the respondents.

The study shows that maximum 32% were age group 16 to 30 years and minimum 3% were age group 75 years. Similarly we found majority of patient in productive age group were in between 16 to 30 years and is consistent to Tamil Nadu, Ghaziabad.[10] The study shows that maximum 55% were female and 44% were male, mostly 95% were muslim and 63% were married, lived in semi paccha house. Another study findings conducted by Gupta et al held in rural area of India showed dissimilarity where majority 51% were male and 49% were female, and the study focus on disease pattern rather socio demographic profile of the respondent.[11]

Regarding occupation most of the respondents related to business and various services respectively 33% and 16.67%. Similar data was also observed in a study conducted in Dhaka city by Rajat Das et al, where they found maximum 52% respondents were female, 71.6% received institutional education and maximum 63% of the respondents were totally independent. [12]

Most of the respondents 43% were found monthly income more than 20,000 BDT and 33% were found monthly income more than 10,000 BDT in this study. This resembles the feature in relation to per capita income of Bangladesh where the rate of economically active population (more than 15 years of age group) is 63.5%.[13] It reveals from the findings that among the respondents majority 84% were literate and 16% were illiterate which correspondent to the adult literacy rate of Bangladesh Bureau of Statistics, 2011. [14]

The study revealed that maximum 97.33% were suffering from illness due to any diseases and among them 66% have investigation report. It was found that loose motion, fever, abdominal pain, cough and chest pain respectively 21%, 20%, 19.33%, 9%, 7% were the predominant complaints of the respondents. The current study dissimilar another study conducted in Tripura, at 2017 and where majority 31% of the respondents were sufferings from respiratory tract infections followed by musculoskeletal problems.[15] In another study most of the respondents were sufferings from musculoskeletal problems, hypertension, diabetes, injuries in rural area of South India.[11]

Among the respondents who are suffering from illness, 66% of them had investigation report and majority had CBC (30%), Chest X-ray (15%), Urine R/M/E(13%), Sputum examination (8%), Stool R/E (7%), USG(6%), ECG(5%), RBS(5%), USG(6%), Widal test (4%). This resembles the similar investigation reports in a study conducted in population of Pakistan.[16] Regarding diagnosis from clinical examination and investigation reports, maximum respondents were diagnosed as gastroenteritis (20%), respiratory tract infections (16%), bronchial asthma (12%), skin diseases (12%), tuberculosis (10%), hypertension (8%), diabetes mellitus (6%,) urinary tract infections (11%) and minimum respondents were diagnosed as typhoid fever and peptic ulcer disease respectively 5% and 4%. Slightly different data was observed by in a study in South Nigeria, in 2018 where they found that maximum patients were suffering from diabetes mellitus and hypertension.[17] Majority of the respondents 96.66% were satisfied with the service provided by Upazilla Health Complex which differ with similar study in Pakistan and Nigeria.[16, 17] Despite the limitations, this study gives a reasonable insight of the important causes for attending patient in upazila health complexes that will help public health planners and policy-makers in strengthening and prioritizing the healthcare needs at the upazila level in Bangladesh.

Limitation of the Study

This was a single centered study, less time oriented and conducted in small sample size. So the results may not reflect the scenario of the whole country.

Conclusion and Recommendations

Improving health around the world today is an important social objective; improving health can have equally large indirect beneficial effect through accelerating economic growth. Now it is needed to improve the health system condition and to increase the health care facilities for the under privileged and vulnerable patients.

Public health priorities are changing everywhere including Bangladesh. Cause-specific mortality and morbidity are most fundamental indicators of population health and is a crucial input into policy debates, planning interventions, prioritizing research for new health technologic. Appropriate health care service should be emphasizing to decrease morbidity rate among the population of rural area. A health care delivery system consist

of all organizations, people and action, whose primary intention is to promote, restore and maintain health which is the fundamental right of every citizen. So, for better health care service, awareness regarding health education and improvement of health care facilities among the population of rural area is much needed.

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