ORIGINAL ARTICLE

Health Care Seeking Pattern among Out Patient Department (OPD) Patients in a Tertiary Care Chest Hospital, Dhaka

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Abstract:

Introduction: *South Asia has one quarter of the global population, but about half of the population live below the poverty line and has limited access to health care. Bangladesh is in the midst of an epidemiologic transition where the burden of disease is shifting from a disease profile dominated by infectious diseases to non-communicable disease. In this regard Chest Disease Hospitals specially in tertiary level are playing important role because both infectious chest diseases including PTB, pneumonia, COVID 19 infection and non-communicable diseases like COPD, asthma, interstitial lung diseases are abundant among the general population.*

Aim of the study: *The aim of this survey is to determine patients' overall necessities which they expect from our hospital and to measure the level of satisfaction with quality of general services and specifically with staff attitude and hospital environment while receiving service in Outpatient department of tertiary level chest hospital like National Institute of Diseases of The Chest & Hospital (NIDCH), Mohakhali, Dhaka.*

Materials & Methodology: *This prospective cross-sectional study was conducted in Outpatient department, National Institute of the Diseases of the Chest and Hospital (NIDCH), Mohakhali, Dhaka, Bangladesh from February 2021 to June 2021. Data were entered, checked and analyzed by SPSS for windows version 20.0 and MS Excel-2016.*

Results: *This study was conducted among 357 patients. The mean age was 45.4±17.2 and the male female ratio was 1:0.5. Though NIDCH is situated in the city, 59.1% patient came from rural area and only 31.9% to came from urban area. Nearly half (49.6%) of the patients were from middle income society. Highest number (18.2%) was diagnosed as tuberculosis. Most common comorbid condition was DM (16.8%.). Most of the patients (56.9%) were satisfied with hospital OPD service.*

Conclusions: *Most of the participants advised to increase the service points to reduce waiting time. The effectiveness of health care may determine to the satisfaction of patients with the health service provided.*

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Introduction:

Bangladesh is a South Asian low-middle-income economy, has experienced a demographic and epidemiological transition with rapid urbanization and a gradual increase in life expectancy[1,2]. It is the seventh most populous country in the world and population of the country is expected to be nearly double by 2050[3]. The rising burden of non-communicable diseases (NCDs) in Bangladesh can be related to rapid urbanization, and nearly 50 percent of the country's slum dwellers live in Dhaka[4,5]. According to the 2018 Country Environmental Analysis (CEA) report of the World Bank, air pollution causes the deaths of 46,000 people in Bangladesh per year[6]. Less than 10% hospitals of this country follow the Medical Waste Management Policies[7]. In 2017, 26 incidents of disease outbreak were investigated by Institute of Epidemiology, Disease Control and Research (IEDCR)[8]. According to the World Health Organization, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity[9,10]. So, health facility should be a place that strives to help patients return to health as defined.

To provide optimum health care facilities one should know the health care seeking pattern of the patients. In this regard age and sex distribution, habitat and economic status, smoking behavior pattern all are important. At the same time number of new, follow-up and referral patients, their chief complaints, preliminary diagnosis, their comorbidities, their required investigations and drugs and their ultimate requirement should be known to give specific management.

In recent years developing countries, influenced heavily by findings in developed countries, have become increasingly interested in assessing the quality of their health care. Outcomes of a health care have received special emphasis as a measure of quality[11,12]. Quality assessment studies usually measure an outcome with three types: medical outcomes, costs, and patients' satisfaction. For the last mentioned, patients are asked to assess not their own health status after receiving care but their satisfaction with the services delivered[13-15].

Patient satisfaction is the degree to which the patient's desired expectations, goals and or preferences are met by the health care provider and or service[16-18]. This satisfaction has gained recognition by measuring the quality-of-service delivery[19-21]. This recognition is not lost on the health sector as the necessity for constant enhancement of quality and safety in the delivery of patient care in healthcare facilities has become an accepted concept[22-24]. The observation and determination of patient satisfaction offers an indicator of the quality of care that considers the patients' perspectives[25-27]. Patients and their relatives have been recognized as the best source of information on the dignity and respect with which they are being treated[28,29]. Patient encounters often disclose how well a hospital system is working, offering insight into areas that need changes and providing useful information that assists management to close gaps between the way things are being run and the way things should be run[29].

Materials and Methodology:

Study design: Prospective Cross-sectional study

Place of study: Outpatient department, National Institute of the Diseases of the Chest and Hospital (NIDCH), Mohakhali, Dhaka, Bangladesh.

Period of study: 5 months (February–June 2021).

Study population: Patients suffering from chest diseases attending OPD of NIDCH for treatment.

Data collection tools: Structured questionnaire.

Sample size: 357 patients

Sampling method: Sample was collected by simple random sampling as per inclusion criteria.

Inclusion criteria:

1. Patients attending at the outpatient department of NIDCH after receiving registration number.

2. Those who gave consent to participate in the study.

Exclusion criteria:

1. Those who were unwilling to take part in the study.

Statistical analysis:

Data were analyzed by SPSS for windows version 20.0 and MS Excel-2016. Descriptive and inferential statistical analysis was carried out.

Ethical issue:

The protocol of the study was approved by the scientific committee of NIDCH. Informed written

consent was taken from all patients or his or her attendants after full explanation of the nature and purpose of all procedures which will be used for the study. As all the tests were noninvasive and non-harmful to the patients, there was no ethical barrier in fact.

Results:

This Prospective Cross-sectional study was conducted in outpatient department, National Institute of the Diseases of the Chest and Hospital (NIDCH), Mohakhali, Dhaka, Bangladesh.We did this study to observe the information regarding health care seeking pattern among the patients visiting the OPD of NIDCH and thus improving the health care services in OPD of NIDCH. For this we observe patients demographic characteristics (age, gender, living area, economic status, occupation type, smoking behavior), type of patients(referred, non-referred) clinical findings (symptoms, co-morbidities), laboratorial investigations,treatment strategies and examined the satisfaction level of the patients.
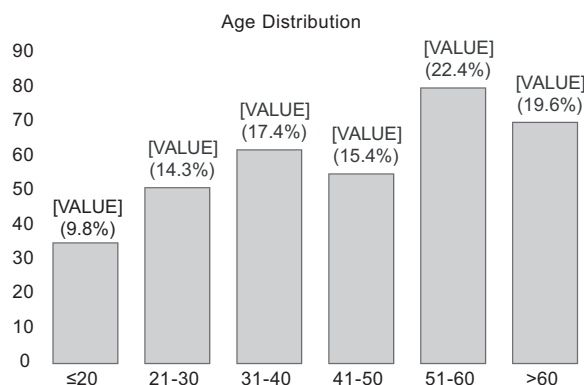

Fig.-1: *Distribution of the study people according to age (N=357)*

Figure-1 shows the age distribution of the study people. In this study, mean age of the study people was 45.4 years (SD± 17.2 years) ranged between 6-80 years. Most of the study people were in the age group of 51-60 years. Statistically insignificant age distribution followed.
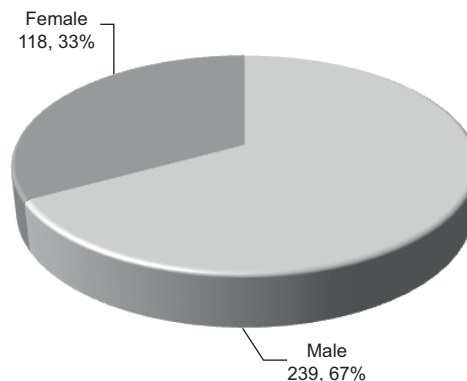

Fig.-2: *Gender distribution of the study people (N-357)*

Figure-2 shows the gender distribution of the study people. In this present study, most of the study people (66.9%) were male and the remaining 33.1% were female. Male female ratio was 1:0.5. P-Value was statistically highly significant (P<0.0001).

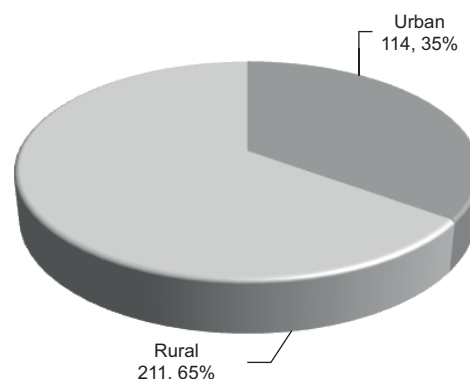**Fig.-3:** *Residential identity of the study people. (n=357)*

Figure-3 In this study, most of the study people (59.1%) were from rural area and the remaining 31.9% were from urban area. P-Value was statistically highly significant (P<0.0001).
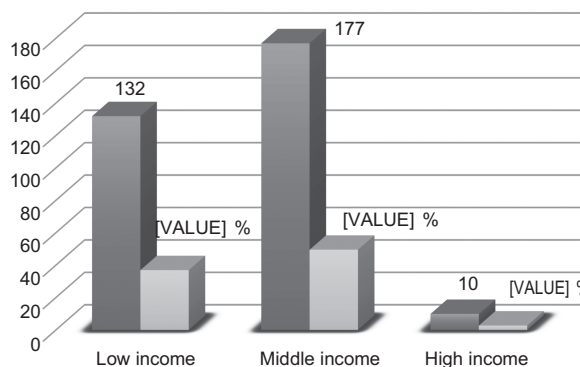

Fig.-4: *Economic status of the study people (N=357)*

Figure-4shows economic status of the study people. In this study, most of the study people (49.6%)

59

were from middle income family. Followed by, 37% were from low-income family and 2.8% were from high income family. P-Value was statistically highly significant (P<0.0001).

Table-1 shows the occupation of the study people. In this present study, most of the study people (23.2%) were housewife. Followed by, 16.5% were farmer, 15.7% were businessman, 15.4% were student, 13.7% were labor, 12.3% were service holder.

Table-I
Occupation of the study people. (n=357)

Occupation	Number of patients	Percentage
Farmer	59	16.5
Labor	49	13.7
Service	44	12.3
Business	56	15.7
Housewife	83	23.2
Student	55	15.4
Others	7	2.0

Table-II
Smoking behavior of the study people. (n=357)

Smoking behaviors	Number of patients	Percentage	P-Value
Non-smoker	174	48.7	<0.0001
Ex-smoker	92	25.8	
Smoker	88	24.6	

S«^{2}-value= 11.527, df=1, P-value=<0.0001

Table-III
Type of patients. (n=357)

Type of Patient		Number of patients	Percentage	P-Value
Types	New	251	70.3	<0.0001
	Follow-up Patient	51	14.3	
	Old	46	12.9	
If New-	Referred from other Hospital	42	16.7	<0.0001
	Referred from GP/Specialist	59	23.5	
	Self-Attended	150	59.8	0.0009

Table-IV
Symptom compelled to attend. (n=357)

Symptom compelled to attend	Number of patients	Percentage
Cough	222	62.2
Breathing Problem	182	51.0
Chest Pain	113	31.7
Fever	109	30.5
Hemoptysis	44	12.3
Epistaxis	11	3.1
Discharge from Lymph node	1	0.3
Productive Sputum	3	0.8

Table-V
Approximate Waiting time to consult. (n=357)

Approximate Waiting time to consult	Number of patients	Percentage	P-Value
<30 minutes	79	22.1	<0.0001
30 minutes to 1 hour	130	36.4	
1-2 hour	84	23.5	
>2 hours	17	4.8	

Table-II shows the smoking behavior of the study people. In this study, most of the study people (48.7%) were non-smoker. Followed by, 25.8% were ex-smoker and 24.6% were smoker. P-Value was statistically highly significant (P<0.0001).

Table-III shows the type of patients. In this study, most of the study people (70.3%) were new patient. Followed by, 14.3% were follow-up patient and 12.9% were old patient. Most of the new patients (59.8%) were self-attended. Followed by, 23.5% were referred from GP/Specialist and 16.7% were referred from hospital.

Table-IV shows the main symptom compelled to attend. In this study, the most common symptom among the study people was cough (62.2%). Followed by, 51% had breathing problem, 31.7% had chest pain, 30.5% had fever, 12.3% had hemoptysis, 3.1% had epistaxis, 0.8% had productive sputum and 0.3% had discharge from Lymphnode.

Table-V shows the approximate waiting time to consult. In this study, maximum (36.4%) approximate waiting time to consult of the study people was 30 minutes to 1 hour. Followed by, 23.5% waited 1-2 hours, 22.1% waited less than 30 minutes

Table-VI

Preliminary Diagnosis of the patient. (n=357)

Preliminary Diagnosis of the patient	Number of patients	Percentage
Asthma	57	16.0
COPD	42	11.8
RTI including Pneumonia	35	9.8
Tuberculosis	65	18.2
DPLD	4	1.1
Bronchiectasis	33	9.2
Malignancy	47	13.2
Pleural Effusion	35	9.8
Pneumothorax	6	1.7
Empyema Thoraces	24	6.7
COVID	5	1.4
Acute sinusitis	1	0.3
Aspergilloma	1	0.3
Lymphadenitis	1	0.3
ACOS	1	0.3
Destroyed left lung	2	0.6
Post TB Bronchiectasis	2	0.6
Others	2	0.6

Table-VII

Co-morbidities of the study people. (n=357)

Co-morbidities	Number of patients	Percentage
T2DM	60	16.8
HTN	53	14.8
CAD	5	1.4
CKD	12	3.4
CLD	1	0.3
Hypothyroid	1	0.3
Total	132	37

Table-VIII

Investigation suggested for the study people. (n=357)

Investigation Suggested	Number of patients	Percentage
X-chest PA view	286	80.1
Routine Blood Tests	254	71.1
Spirometry and other PFT	14	3.9
Sputum Examinations	164	45.9
CT Chest	78	21.8
Bronchoscopy/other Invasives	8	2.2
Fine Needle Aspiration	26	7.3
Biopsies	1	0.3
Lymph node aspirate for Gene expert	1	0.3
ECHO cardiogram	1	0.3
DST for mycobacteria	1	0.3

and 4.8% waited more than 2 hours. P-Value was statistically highly significant (P<0.0001).

Table-VI shows the preliminary diagnosis of the patient. In this study, most of the study people (18.2%) had tuberculosis. Followed by, 16% had asthma, 47% had malignancy, 11.8% had COPD, 9.8% had RTI including pneumonia, 9.8% had pleural effusion, 9.2% had bronchiectasis, 6.7% had empyema thoracic, 1.7% had pneumothorax, 1.4% had COVID-19, 1.1% had DPLD, 0.6% had destroyed left lung, 0.6% had post TB bronchiectasis, 0.3% had acute sinusitis, 0.3% had aspergilloma, 0.3% had lymphadenitis.

Table-VII shows the co-morbidities of the study people. In this present study, 37% of people (75 had

co-morbidities. Followed by, 16.8% had T2DM, 14.8% had HTN, 3.4% had CKD, 1.4% had CAD, 0.3% had CLD and 0.3% had hypothyroidism.

Table-VIII shows the investigation suggested for the study people. In this present study, the most common (80.1%) suggested investigation for the study people was X-chest PA view. Followed by, 71.1% were suggested to do Routine Blood Tests, 45.9% were suggested to do Sputum Examinations, 21.8% were suggested to do CT Chest, 7.3% were suggested to do Fine Needle Aspiration, 3.9% were Spirometry and other PFT, 2.2% were suggested to do Bronchoscopy/ other Invasives, 0.3% were suggested to do Biopsies, 0.3% were suggested to do Pus for Gene expert, 0.3% were suggested to do ECHO cardiogram and 0.3% were suggested to do DST.

Table-IX

Treatment Given to the study people. (n=357)

Treatment Given	Number of patients	Percentage
Antibiotics	251	70.3
Bronchodilators	191	53.5
Steroids	100	28.0
Anti histamin	5	1.4
Vitamins	4	1.1
Anti ulcerant	2	0.6
ATT	50	14.0
RetreatmentATT	1	0.3

Table-X

Participant's advice to improve service here. (n=357)

Participant's advice to improve service here	Number of patients	Percentage
To increase service points	108	30.3
To improve HCWs	68	19.0
To increased space allocation	121	33.9
Investigation service	107	30.0
Medication service	91	25.5

Table-IX shows the treatment Given to the study people. In this present study, most of the study people (70.3%) were treated with Antibiotics. Followed by, 53.5% were treated with Bronchodilators, 28% were treated with Steroid, 14% were treated with ATT, 1.4% were treated with Anti histamine, 1.1% were treated with Vitamins, 0.6% were treated with Anti ulcerate and 0.3% were retreated.

The participants had given advice to improve service here (Table-14). Most of the participants (33.9%) advised to increased space allocation. Followed by, 30.3% advised to increase service points, 30% advised to improve investigation service, 25.5% advised to improve investigation service, 19% advised to improve HCWs.

Table-XI

Distribution of responses from the participants on hospital staffs and availability of service. (n=367)

Hospital Staffs and Availability of Service		Number of patients	Percentage
Behavior of medical staffs	Excellent	154	43.1
	Good	189	52.9
	Bad	14	3.9
Quality of outdoor waiting arrangement	Excellent	121	33.9
	Good	200	56.0
	Bad	36	10.1
Waiting time for doctors	Excellent	100	28.0
	Good	221	61.9
	Bad	29	8.1
	Not mentioned	7	2.0
Experience on availability of medicine as per prescription	Excellent	121	33.9
	Good	196	54.9
	Bad	36	10.1
	Not mentioned	4	1.1

Table-XII

Distribution of responses from the participants regarding Clinical Care. (n=357)

Clinical Care		Number of patients	Percentage
Doctors' attention towards patient while taking the history	Excellent	171	47.9
	Good	175	49.0
	Bad	11	3.1
Examination time given to the patient by the doctors	Excellent	125	35.0
	Good	218	61.1
	Bad	11	3.1
Quality to make the patients clear about his problems by the doctors	Excellent	4	1.1
	Good	129	36.1
	Bad	214	59.9
	Not-mentioned	14	3.9
Quality in explaining the patients about medicine & dose by doctors	Excellent	121	33.9
	Good	225	63.0
	Bad	11	3.1
By the doctors during clinical examination Quality of privacy maintenance	Excellent	121	33.9
	Good	225	63.0
	Bad	7	2.0
	Not-mentioned	4	1.1

Table-XIII

Distribution of responses as per the opinion related to hospital utility service. (n=357)

Hospital Utility Services		Number of patients	Percentage
Opinion on overall hospital cleanness	Excellent	161	45.1
	Good	189	52.9
	Bad	7	2.0
Opinion on accessibility to hospital department	Excellent	154	43.1
	Good	186	52.1
	Bad	18	5.0
Response on overall hospital management and helping facilities	Excellent	136	38.1
	Good	203	56.9
	Bad	14	3.9
	Not-mentioned	4	1.1

Table-XI shows the distribution of responses from the participants on hospital staffs and availability of service. According to most of the participants (52.9%), the behavior of medical staffs was good. According 43.1% participants, the behavior of medical staffs was excellent and according to 3.9% participants, the behavior of medical staffs was bad. According to most of the participants (56%), the quality of outdoor waiting arrangement was good. According to 33.9% participants, the quality of outdoor waiting arrangement was excellent and according to 10.1% participants, the quality of outdoor waiting arrangement was bad. According to most of the participants (61.9%), waiting time for doctors was good. According to 28% participants, the waiting time for doctors was excellent and according to 8.1% participants, the waiting time for doctors was bad. According to most of the participants (54.9%), the experience on availability of medicine as per prescription was good. According to 33.9% participants, the experience on availability of medicine as per prescription was excellent and according to 10.1% participants, the experience on availability of medicine as per prescription was bad.

Table-12 shows the distribution of responses from the participants regarding Clinical Care. According to most of the participants (49%), the doctors' attention towards patient while taking the history was good. According to 47.9% participants, the doctors' attention towards patient while taking the history was excellent and according to 3.1% participants, the doctors' attention towards patient while taking the history was bad. According to most of the participants (61.1%), the examination time given to the patient by the doctors was good. According to 35% participants, the examination time given to the patient by the doctors was excellent and according to 3.1% participants, the examination time given to the patient by the doctors was bad. According to most of the participants (59.9%), the quality to make the patients clear about his problems by the doctors was bad. According to 36.1% participants, the quality to make the patients clear about his problems by the doctors was good and according to 1.1% participants, the quality to make the patients clear about his problems by the doctors was bad. According to most of the participants (63%), the quality in explaining the patients about medicine & dose by doctors was good. According to 33.9% participants, the quality in explaining the patients about medicine & dose by doctors was excellent and according to 3.1% participants, the quality in explaining the patients about medicine & dose by doctors was bad. According to most of the participants (63%), the quality of privacy maintenance by the doctors during clinical examination was good. According to 33.9% participants, the quality of privacy maintenance by the doctors during clinical examination was excellent and according to 2% participants, the quality of privacy maintenance by the doctors during clinical examination was bad.

Table-XIII shows the distribution of responses as per the opinion related to hospital utility service. The most common opinion (52.9%) of the participant on overall hospital cleanness was good. According to 45.1% of the study people, the overall hospital

cleanness was excellent and according to 2% of the study people, the overall hospital cleanness was bad. The most common opinion (52.1%) of the participant on accessibility to hospital department was good. According to 43.1% of the study people, the accessibility to hospital department was excellent and according to 5% of the study people, the accessibility to hospital department was bad. The most common response (56.9%) of the participant on overall hospital management and helping facilities was good. According to 38.1% of the study people, the overall hospital management and helping facilities was excellent and according to 3.9% of the study people, the overall hospital management and helping facilities was bad.
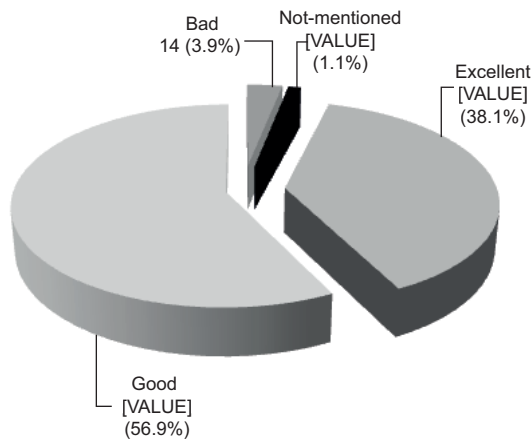

Fig.-5: *Distribution of satisfaction judgment about overall hospital OPD services. (n=357)*

In this study, the most common (56.9%) the satisfaction judgment of the study people about overall hospital OPD services was good. 38.1% had excellent satisfaction judgment about overall hospital OPD services, 3.9% had bad judgment about overall hospital OPD services and 1.1% had not given any judgment about overall hospital OPD services.

Discussion:

This Prospective Cross-sectional study was conducted in outpatient department, National Institute of the Diseases of the Chest and Hospital (NIDCH), Mohakhali, Dhaka, Bangladesh. We did this study to observe the information regarding health care seeking patternamong the patients who are visiting the OPD of NIDCH and thus improving the health care services in OPD of NIDCH. For this we observe patients demographic

characteristics, clinical findings, laboratorial investigations, treatment strategies and examined the satisfaction level of the patients.

In this study, mean age of the study people was 45.4 years (SD± 17.2 years) ranged between 6-80 years. Most of the study people were in the age group of 51-60 years. A study of Akter R et al. found maximum patients in between 16-45 years of age[30]. Another study of Stefanovska VV et al found by observing the mean age of the patients was 49±15.12 with 18-80 age range[30]. No matter what the age is, but patients can take service from the out patients department.

In this present study, most of the study people (66.9%) were male and the remaining 33.1% were female. Male female ratio was 1:0.5. Habibullah S et al. studied in Pakistan on the adult patients attending in OPDs[64]. On that study about 54% patients found male. Stefanovska VV et al found 61% male patients which is similar to our study[31].

About most of the study people (59.1%) were from rural area and the remaining 31.9% were from urban area. This happen may due to the hospital located near the city bus stand. The rural people who come in the city to get health services, they feel easy access here. Mane V et al. found 88.7% rural patients and the rest was from urban because of the location[32].

Most of the study people (49.6%) were from middle income family. Then, 37% were from low-income family and 2.8% were from high income family. According to Mane V et al. majority of the patients 422 (41.8%) belonged to lower middle class and the least number 53 (5.3%) belonged to upper class[33].

In this present study, most of the study people (23.2%) were housewife. Followed by, 16.5% were farmer, 15.7% were businessman, 15.4% were student, 13.7% were labor, 12.3% were service holder, 0.8% were retired, 0.6% were unemployed, 0.3% hawker and 0.3% were barber. Unemployed people were not so much but Stefanovska VV et al found about half 50.8% unemployed study people[63]. Another study conducted in Nizeria, majority of the study patients were civil servants (47.6%), those engaged in business/trading (27.1%) and unemployed/students (25.3%)[34]. As maximum patients were from rural area so, majority were farmer and businessman. According to the smoking behavior, there most of the study people (48.7%)

were non-smoker. Followed by, 25.8% were ex-smoker and 24.6% were smoker.

In the department of OPD different type of patients came for service. Of them, about (70.3%) were new patient. Followed by, 14.3% were follow-up patient and 12.9% were old patient. Most of the new patients (59.8%) were self-attended. Followed by, 23.5% were referred from GP/Specialist and 16.7% were referred from hospital. In the study of Stefanovska VV et al 22.3% was new patients, 9.6% patients come for the second time and 68.1% was follow-up patients[63].

The most common symptom among the study people was cough (62.2%). Followed by, 51% had breathing problem, 31.7% had chest pain, 30.5% had fever, 12.3% had hemoptysis, 3.1% had epistaxis, 0.8% had productive sputum and 0.3% had pus from LN. From the study of Akter R et al. the most common diseases were DM affecting 55(11%), HTN was 2nd common disease 51(10.2%) in her study[62]. Another study depicted that the most common symptom for OPD consultations made were for musculoskeletal complaints 16.14% like easy fatigability followed by fever 15.25%, headache 12.09%, and acute respiratory infections 8.91%[67]. Mane V et al. found majority 7.82% had abdomen pain, knee pain in 6.14% cough/cold in 54 (5.35%), fever in 3.17% chest pain in 1.88% of patients[33]. From the findings of Khan et al, the most common symptoms among the patients were related to indigestion/excess gas formation[34].

The approximate waiting time to consult found in this study, majority (36.4%) approximate waiting time to consult of the study people was 30 minutes to 1 hour. Followed by, 23.5% waited 1-2 hours, 22.1% waited less than 30 minutes and 4.8% waited more than 2 hours.

After the preliminary diagnosis of the patient, we found in this study, most of the study people (18.2%) had tuberculosis. Followed by, 16% had asthma, 47% had malignancy, 11.8% had COPD, 9.8% had RTI including pneumonia, 9.8% had pleural effusion, 9.2% had bronchiectasis, 6.7% had empyema thoracic, 1.7% had pneumothorax, 1.4% had COVID-19, 1.1% had DPLD, 0.6% had destroyed left lung, 0.6% had post TB bronchiectasis, 0.3% had acute sinusitis, 0.3% hadaspergilloma, 0.3% had lymphadenitis, 0.3% had ACOS, 0.3% had chronic organ and 0.3% had catamonial.

The co-morbidities of the study people were presented in this study, most of the study people (75.6%) had no co-morbidities. Followed by, 16.8% had T2DM, 14.8% had HTN, 3.4% had CKD, 1.4% ha CAD, 0.3% had CLD and 0.3% had hypothymid.

The investigation suggested for the study people in this present study, the most common (80.1%) suggested investigation for the study people was X-chest PA view. Followed by, 71.1% were suggested to do Routine Blood Tests, 45.9% were suggested to do Sputum Examinations, 21.8% were suggested to do CT Chest, 7.3% were suggested to do Fine Needle Aspiration, 3.9% were Spirometry and other PFT, 2.2% were suggested to do Bronchoscopy/other Invasives, 0.3% were suggested to do Biopsies, 0.3% were suggested to do Pus for Gene expert, 0.3% were suggested to do ECHO cardiogram and 0.3% were suggested to do DST.

The treatment given to the study people in this study, most of the study people (70.3%) were treated with Antibiotics. Followed by, 53.5% were treated with Bronchodilators, 28% were treated with Steroid, 14% were treated with ATT, 1.4% were treated with Anti histamin, 1.1% were treated with Vitamins, 0.6% were treated with Anti ulcerant and 0.3% were retreated.

The participants had given advice to improve service here. Most of the participants (33.9%) advised to increased space allocation. Followed by, 30.3% advised to increase service points, 30% advised to improve investigation service, 25.5% advised to improve investigation service, 19% advised to improve HCWs.

The distribution of responses from the participants on hospital staffs and availability of service. Most of the participants (52.9%), the behavior of medical staffs was good. 43.1% participants stated the behavior of medical staffs was excellent and some 3.9% participants commented that the behavior of medical staffs was bad. Polite and courteous behaviour of the hospital staffs is very necessary for hospital out patients department services. Training of hospital staffs and in particular the civilian staffs might have positive impact towards higher satisfaction level. Pawar[69] found 90% of the respondents remarked that OPD services were satisfactory.

According to most of the participants (56%), the quality of outdoor waiting arrangement was good, 33.9% participants, the quality of outdoor waiting arrangement was excellent and 10.1% participants, the quality of outdoor waiting arrangement was bad. According to most of the participants (61.9%), waiting time for doctors was good. According to 28% participants, the waiting time for doctors was excellent and according to 8.1% participants, the waiting time for doctors was bad. As waiting times become inevitable, there need to supply waiting rooms with television sets, newspaper, magazine and adequate sanitary facilities to reduce the monotony of waiting[35].

According to most of the participants (54.9%), the experience on availability of medicine as per prescription was good. According to 33.9% participants, the experience on availability of medicine as per prescription was excellent and according to 10.1% participants, the experience on availability of medicine as per prescription was bad.

The distribution of responses from the participants regarding Clinical Care, according to most of the participants (49%), the doctors' attention towards patient while taking the history was good. According to 47.9% participants, the doctors' attention towards patient while taking the history was excellent and according to 3.1% participants, the doctors' attention towards patient while taking the history was bad. According to most of the participants (61.1%), the examination time given to the patient by the doctors was good. According to 35% participants, the examination time given to the patient by the doctors was excellent and according to 3.1% participants, the examination time given to the patient by the doctors was bad. According to most of the participants (59.9%), the quality to make the patients clear about his problems by the doctors was bad. According to 36.1% participants, the quality to make the patients clear about his problems by the doctors was good and according to 1.1% participants, the quality to make the patients clear about his problems by the doctors was bad. According to most of the participants (63%), the quality in explaining the patients about medicine & dose by doctors was good. According to 33.9% participants, the quality in explaining the patients about medicine & dose by doctors was excellent and according to 3.1% participants, the quality in explaining the patients

about medicine & dose by doctors was bad. According to most of the participants (63%), the quality of privacy maintenance by the doctors during clinical examination was good. According to 33.9% participants, the quality of privacy maintenance by the doctors during clinical examination was excellent and according to 2% participants, the quality of privacy maintenance by the doctors during clinical examination was bad. One study shows that more than 86% of outdoor patients and 73% of indoor patients went directly to the medical college hospital without being referred from any other facility or doctor. The reported consultation time with the doctor was one minute or less for 29% of patients and more than five minutes for only 10% of patients[36]. In some studies, doctors' treatment, behaviour, and long waiting time for consultation with doctors came out as major contributing factors to patient dissatisfaction in Bangladesh[37-39]. According to findings of the present study, the following items were found to be the main antecedents of patient's satisfaction with doctors' medical care in Bangladesh: (1) doctors should ask detailed questions about patients' problems; (2) doctors must listen carefully to their problems; (3) The behaviour of the doctor should good and friendly; (4) doctors must follow up treatments; and (5) patients' trust in doctors' treatment[40].

As per the opinion related to hospital utility service, the most common opinion (52.9%) of the participant on overall hospital cleanness was good. According to 45.1% of the study people, the overall hospital cleanness was excellent and according to 2% of the study people, the overall hospital cleanness was bad. The most common opinion (52.1%) of the participant on accessibility to hospital ward/department was good. According to 43.1% of the study people, the accessibility to hospital ward/department was excellent and according to 5% of the study people, the accessibility to hospital ward/department was bad. The most common response (51%) of the participant on hospital cafeteria facilities for patients' services was good. According to 31.9% of the study people, the hospital cafeteria facilities for patients' services was excellent and according to 16% of the study people, the hospital cafeteria facilities for patients' services was bad. The most common response (56.9%) of the participant on overall hospital management and helping facilities was good.

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According to 38.1% of the study people, the overall hospital management and helping facilities was excellent and according to 3.9% of the study people, the overall hospital management and helping facilities was bad. Panda PS et al found in his study that the highest satisfaction of patients towards infrastructure services was with service of separate place for examination while the lowest satisfaction was with the water and sanitation facilities which was mainly due to overcrowding and lack of cleaning staff[41]. SK Jawahar[42] found that 50% of the patients were satisfied with the cleanliness of a super specialty hospital in India. Krupal Joshi[43] found in Gujrat that, patients were fully satisfied regarding hospital cleanliness.

More than half (56.9%) of the patients had satisfaction on the overall services of the hospital. 38.1% had excellent satisfaction judgment about overall hospital OPD services, 3.9% had bad judgment about overall hospital OPD services and 1.1% had not given any judgment about overall hospital OPD services. Similar status found in other literatures also[44-45].

Conclusions & Recommendations:
Health care seeking pattern of the patients will help the authority of NIDCH to improve the health facilities. A good number of information have been collected by analyzing the data. Most of the patients (59.1%) received treatment in OPD are from rural area. The common groups of patient were suffering from tuberculosis 18.2%, asthma 16%, COPD 11.8% and malignancy 13.2%. So the authorities should give more emphasis regarding management of these groups of patient.About 38.1% patients were highly satisfied and more than half of the patients were satisfied with the services provided in the out-patient department of NIDCH in Mohakhali, Dhaka. Still there 3.9% people who are not satisfied with the services. The effectiveness of health care may determine to the satisfaction of patients with the health service provided.This type of study should be performed in each institute and hospital in regular interval. The findings of the study may help the practitioners, stuff, and hospital authority to know various neglected areas of the consultation. Continuous monitoring may need to assess the degree of sustainable improvement. It is recommended that a future study with a larger scope to improve the quality and outcome of such studies.

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