

Original Research Article  
**Patients' Satisfaction regarding Eye Care  
Services in a Multi-specialty Eye Hospital of  
Northern Bangladesh**

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**ABSTRACT**

**Aims:** Patients' satisfaction is an important health outcome, which is regarded as a determinant measure for quality of health care services. The aim of the study is to evaluate patients' satisfaction regarding eye care services in a multi-specialty eye hospital of northern Bangladesh.

**Methods:** This cross sectional descriptive study was conducted among the patients who took the eye care services in OPD and admitted as in-patients in the hospital. Randomly selected patients were interviewed by trained staff. A semi-structured questionnaire was used to conduct these interviews. Their responses were grouped into one of five categories and evaluated to determine satisfaction for different components of eye care services. There were also open-ended questions regarding feedback from participants' view and recommendations for the improvement of the quality of services.

**Results:** Four hundred and forty nine participants were interviewed. Among these, 71 (15.81%) were very satisfied and 358 (79.73%) were satisfied, constituting 95.54% satisfaction with overall services received at the hospital. 99.55% of respondents were satisfied with the doctors and 98.66% of respondents were satisfied with other health workers regarding patient care services. 86.1% patient had satisfaction with the cost of services, while 28.57% expressed that the surgery cost was high. Though the participants expressed dissatisfaction for the long waiting time in front of refraction and doctors' consultation room during pick hours, 442 (98.4%) patients expressed their willingness to utilize the services again.

**Conclusion:** Although eye care services both in OPD and in the IPD were satisfactory according to the respondents, there are scopes for improvement. Patient satisfaction surveys should be encouraged in hospitals for better accountability and also for strengthening the quality of eye care services.

**Comment [1]:** Please, explain what other health workers are there?

*Keywords: Health Care Services, Eye care, Patient Satisfaction, Quality*

**1. INTRODUCTION**

Quality can be defined as the totality of features and characteristics of a service that bear on its ability to satisfy a given need [1]. Patient satisfaction is considered to be one of the important factors which determine the quality of health care service [2]. The assessment of patient satisfaction represents a comparative balance between patient expectations of optimal service and the perception of the actual service receives [3]. It is the key to the

success and sustainability of a health care service provider, specially a hospital in private sector. To improve the quality health care services by giving importance to patient's feedback is to respect the views of the consumer and to democratize the process of care [4]. Patients' satisfaction also plays crucial role to attract new patients and retain existing ones to utilize the health services again. It is observed that dissatisfaction with the quality of health care services in a developing country like Bangladesh has led a good number of patients to go abroad [5]. Therefore, a survey or research on patient satisfaction can be an important tool to improve the quality of services. This study was therefore undertaken with the aim to find out the patients' satisfaction related to different parameters of quality of health care regarding eye care services offered in a tertiary eye hospital of Northern Bangladesh.

## **2. MATERIAL AND METHODS**

This is a hospital-based cross sectional descriptive study carried out in Out Patient Department (OPD) and Indoor Patient Department (IPD) of Deep Eye Care Foundation, Rangpur, Bangladesh. Usually, the hospital provides eye care services to 700-800 patients and operates 50-60 patients for eye surgeries per day. The data were collected in 1st and 2nd week of February 2022 among the patient who took the eye care services in OPD or admitted in the IPD. With a population proportion 50% and assuming 95% confidence interval and a 5% margin of error the calculated sample size was 385. We used 15% of non-response in the sample size and the ultimate sample size was 442. A total of 449 participants were interviewed randomly for the study. Informed written consent was obtained from each participant prior to administering the questionnaire. The purpose and method of the study was explained. All the respondents were assured of complete anonymity and confidentiality. Accompanying adults (parent, sibling or other relation) answered for children. The participants were interviewed at the end of receiving care at the OPD or just prior of discharge from IPD. They were interviewed by five research assistants adequately trained for the study. They were not hospital staff. This is to enable the patients have the freedom to express their true level of satisfaction not having to fear retribution from a hospital staff. A semi-structured questionnaire was used for this patient's satisfaction survey. The questionnaire was pretested and validated on a clinic day outside the study period. The questionnaire had a section for socio-demographic characteristics of the respondents and asked questions regarding waiting time, patient management, cleanliness of hospital, services provided by the doctor and other para-medical staffs and their behavior with patients, clinical care including medical and surgical, services charges and over all remarks. The level of satisfaction for each question was graded from points 1-5 (very-satisfied to very-dissatisfied). There were three open-ended questions regarding feedback from participants' view and recommendations for the improvement of the quality of services. Collected data were analyzed by SPSS 25.0 and qualitative data were expressed as frequency and percentage. The study was approved by the ethical institutional review board of Deep Eye Care Foundation.

## **3. RESULTS**

### **3.1 Patients' baseline characteristics**

This study consists of total 449 respondents who came from different districts of Northern part of Bangladesh, where 236 (52.6%) were females and 213 (47.4%) were males. The age range of the respondents was 0-82 years and the mean age ( $\pm$ standard deviation) was 37.29 ( $\pm$ 21.8) years. Majority of the respondents 135 (30.07%) were from the age category of 36-

55 years. Literacy status of the patients showed that 8.7% were under school age and 27.2% patients had no education; rest of the participants had different levels of education. Regarding occupation of the respondents, 144 patients (32.07%) were housewife and 81 patients (18.04%) were service holder. The distribution of the sample according to age, sex, literacy status and occupation is shown in (Table 1).

Regarding types of patients, 354 (78.8%) were from OPD, 95 (21.2%) from IPD which contains 48 paid surgery patients and 47 non-paid surgery patients from outreach camp. Among all of these, 222 (49.4%) were new patients and 227 (50.6%) were old patients including surgery follow-up patients. According to location, 268 (59.7%) patients were rural and 181 (40.3%) were urban patients. Mean frequency of visits of the old patients was 3.2 times, this means majority of the early service recipients came back for the service. The distribution of the sample according to types of patient is shown in (Table 2). Majority of the patients (57.4%) visited the hospital based on the recommendation of relatives & friends, while 17.8% were recommended by the patients who directly received service from the hospital previously (Fig. 1).

### 3.2 Patients' perception of waiting time

Regarding time spent in OPD, the maximum time was 300 minutes and minimum time was 10 minutes for a patient to get their complete service. The mean time was 72.13 minutes. 133 patients (29.6%) expressed maximum waiting time in front of refraction room, while 117 patients (26.06%) expressed in front of doctor's consultation room. They recommended for reducing waiting time in these areas (Table 3).

### 3.3 Patients' satisfaction with patient-provider relationship

When assessing patients' satisfaction with the service providers, they were asked to indicate if the doctors were courteous, listened to their complaints and took enough time with them. In this aspect of care, 99.55% of respondents were satisfied (this comprises 36.08% and 63.47% of the respondents selecting very satisfied and satisfied respectively). The same questions were asked regarding the relationship between patients and other health workers (refractionists, ophthalmic assistants and counselors). In this regard, 98.66% of respondents were satisfied (this comprises 39.64% and 59.02% of the respondents selecting very satisfied and satisfied respectively). On the other hand only one of the respondents (0.22%) was dissatisfied with them (Table 4).

### 3.4 Patients' satisfaction with the hospital facilities and environment

Concerning satisfaction of the respondents with the facilities in the hospital and cleanliness of the hospital environment, 99.11% patients were satisfied with the seating & waiting arrangement (39.64% and 59.02% was very satisfied and satisfied respectively). 94.8% patients were satisfied with the washroom facility and 98.65% patients were satisfied with over all cleanliness of the hospital (Table 5).

**Table 1: Distribution of study sample according to baseline characteristics**

Baseline characteristics	Frequency (n)	Percentage (%)
<b>Age group (years)</b>		
0-16 Yrs	105	23.39
17-35 Yrs	97	21.60
36-55 Yrs	135	30.07
56-75 Yrs	106	23.61

> 75 Yrs	6	1.34
<b>Sex</b>		
Male	213	47.4
Female	236	52.6
<b>Literacy status</b>		
No Education	122	27.17
Primary Education	78	17.37
Secondary Education	103	22.94
Tertiary Education	105	23.39
Non-graded Religious Education	2	0.45
Under School Age	39	8.69
<b>Occupation</b>		
Service	81	18.04
Businessman	61	13.59
Farmer	61	13.59
Housewife	144	32.07
Student	51	11.36
Day Labor/Worker	30	6.68
Unemployed	13	2.9
Others	8	1.78
<b>Total</b>	<b>449</b>	<b>100</b>

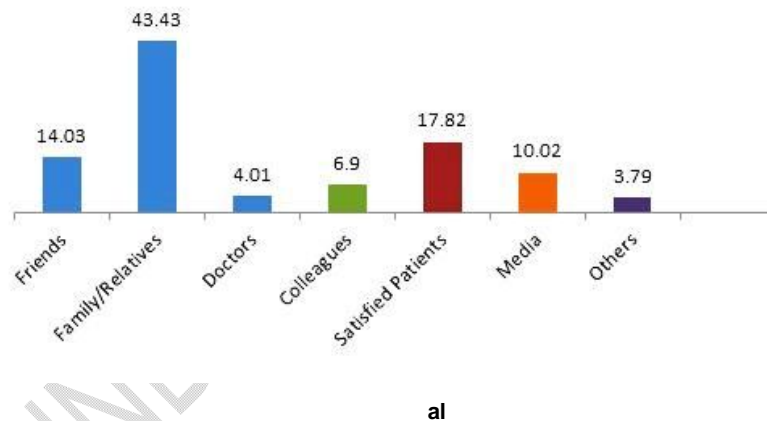


Figure 1: Source of information about the service of the hospital

Table 2: The distribution of the sample according to types of patient

Baseline characteristics	Frequency (n)	Percentage (%)
<b>Patient type according to admission</b>		
OPD	354	78.8
IPD	95	21.2
• Paid	48	10.7
• Non-paid	47	10.5
<b>Patient type according to registration</b>		
New Patient	222	49.4

Old Patient	227	50.6
<b>Patient type according to location</b>		
Rural	268	59.7
Urban	181	40.3
<b>Total</b>	<b>449</b>	<b>100.0</b>

**Table 3: Maximum waiting time on which areas of the hospital**

Areas of Hospital	Frequency (n)	Percentage (%)	Statistics
At Registration Counter	23	5.12	Maximum waiting Time= 300 minutes Minimum waiting time= 10 minutes Mean waiting time= 72.13 minutes
In front of Refraction	133	29.62	
Counseling Room	12	2.67	
In front of Doctor's room	117	26.06	
Pathology Lab	16	3.56	
Spectacles Shop	34	7.57	

### 3.5 Patients' satisfaction with cost for services

With regard to services charges in OPD, 227 (56.47%) respondents expressed that the cost is reasonable and 154 (38.31%) respondents remarked it as a lost cost service. Both group constituting 381 (94.78%) respondents were satisfied with what they paid. Regarding cost for surgeries, 34 (69.38%) patients expressed that the surgery cost was reasonable and they satisfied, while 14 (28.57%) expressed that the surgery cost was high (n=48) (Table 6).

### 3.6 Satisfaction with inpatient services/facilities

When assessing the satisfaction of the 95 in-patient respondents, 40.43% and 56.38% patients were very satisfied and satisfied respectively with the services of nurses at ward and operation theatre (constituting 96.81% satisfied patients). 96.85% patients were satisfied with their surgery experience. All the surgery patients (100%) were satisfied with the cleanliness of ward and neatness of the toilet facilities (40.43% and 56.38% patients were very satisfied and satisfied respectively) (Table 4).

**Table 4: Satisfaction of different components of services**

Subjects	Very Satisfied	Satisfied	Average	Dissatisfied	Very Dissatisfied
Listened to their complaints and took enough time by Doctors	162 (36.08%)	285 (63.47%)	2 (0.45%)	0 (0.0%)	0 (0.0%)
Opinion on patient care and treatment services provided by Doctor	158 (35.19%)	287 (63.92%)	4 (0.89%)	0 (0.0%)	0 (0.0%)
Opinion on behavior	185 (39.64%)	257 (59.02%)	5 (1.11%)	1 (0.22%)	0 (0.0%)

of others staff related to patient care					
Opinion on patient care services provided by Doctor	178 (39.64%)	265 (59.02%)	5 (1.11%)	1 (0.22%)	0 (0.0%)
Opinion on behavior of the counselors	162 (39.51%)	244 (59.51%)	4 (0.98%)	0 (0.0%)	0 (0.0%)
Counselor's explanation about the treatment, surgery or examination and fees	143 (35.4%)	254 (62.87%)	6 (1.49%)	1 (0.25%)	0 (0.0%)
Opinion on the nurses/OA's services in the ward	38 (40.43%)	53 (56.38%)	3 (3.19%)	0 (0.0%)	0 (0.0%)
Opinion on surgery experience by OT patients	29 (30.53%)	63 (66.32%)	3 (3.16%)	0 (0.0%)	0 (0.0%)

**Table 5: Satisfaction of different hospital facilities and environment**

Subjects	Very Satisfied	Satisfied	Average	Dissatisfied	Very Dissatisfied
Waiting/seating area	183 (40.76%)	262 (58.35%)	4 (0.89%)	0 (0.0%)	0 (0.0%)
Toilet/Washroom	112 (32.37%)	216 (62.43%)	17 (4.91%)	1 (0.29%)	0 (0.0%)
Cleanliness of the hospital	148 (33.26%)	291 (65.39%)	5 (1.12%)	1 (0.22%)	0 (0.0%)
Cleanliness of the OT and Ward	39 (41.05%)	56 (58.95%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Access of hospital service-related information	120 (27.09%)	318 (71.78%)	5 (1.13%)	0 (0.0%)	0 (0.0%)
Overall hospital management	109 (24.77%)	325 (73.86%)	6 (1.36%)	0 (0.0%)	0 (0.0%)

### 3.7 Overall satisfaction with services

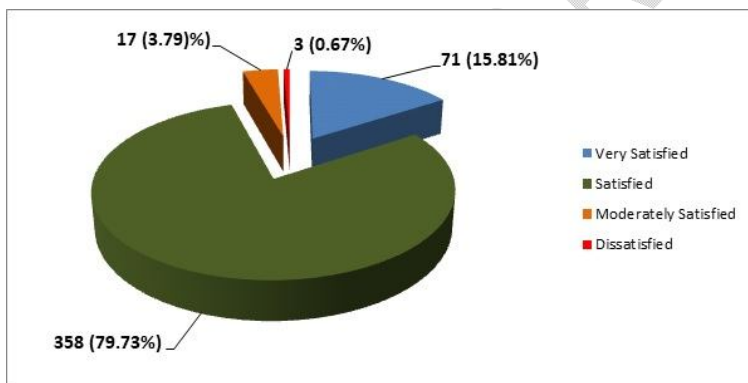
Regarding overall satisfaction with the services received at the hospital, 71 (15.81%) were very satisfied and 358 (79.73%) were satisfied, constituting 95.54% satisfied patients. Only 3 patients (0.7%) had poor satisfaction with over all services (Figure 2). Among them, 442 (98.4%) patients expressed their willingness to utilize the services again, while 420 patients (93.5%) were willing to act as messenger, as they felt that the hospital is worth referring to other patients.

### 3.8 Patients' feedback

Regarding feedbacks from patient's view they expressed following positive remarks- green environment of the hospital, good behavior of the doctors and other clinical staff, quality of service, cleanness of the hospital and children's play area in pediatric department etc. Some suggestions from the patients include- reduce the price of spectacles, improve the food facilities, increase number of doctors and nurses, reduce time spent for services etc.

**Table 6: Opinion on service charges**

Subjects	Very High	High	Reasonable	Low	Very Low
Service charges in OPD	1 (0.25%)	20 (4.98%)	227 (56.47%)	154 (38.31%)	0 (0.0%)
Ocular Investigation & Surgery charges	0 (0.0%)	14 (28.57%)	34 (69.38)	1 (2.04%)	0 (0.0%)



**Fig. 2: Overall satisfaction of the respondents with hospital services**

#### 4. DISCUSSION

Patient satisfaction is an important aspect for health service provider and is highly related to quality of service [6]. Satisfied patient shows long term relationship with their service provider which result in better compliance, continuity of care, and ultimately better health outcomes [7, 8]. The present study was conducted to understand patient's satisfactions

toward eye care services at different levels and suggest the changes to be made accordingly. Although our study indicated a high satisfaction level with the overall services of the hospital, some services had scope for improvement to reach patient's expectations.

Most of the participants expressed satisfaction with the overall quality of eye care received from the hospital; 95.54% (satisfied plus very satisfied) in this series is comparable with numbers of studies at home and abroad varies between 76% to 95% [9, 10, 11]. All satisfied patients expressed their willingness to utilize the services again and act as a messenger for referring to other patients.

Patient care service by the doctors and other health workers are the key factors of satisfaction of patients with services at the hospital. Nearly all types of patients seemed satisfied with the behaviors of all categories of service providers, such as doctors, ophthalmic assistants, nurses and counselors. This result is similar to the Indian [12, 2] and Nigerian studies [13].

The long waiting time at refraction room and before meeting the doctor appeared to be a major dissatisfaction point in our study which is similar to other studies. [12, 14] Some mechanisms need to be found out for minimizing the waiting time during pick hour through proper planning as this has been noted to significantly affect patients' satisfaction [15].

Regarding cleanliness of the hospital environment and seating arrangement, almost all the patients were satisfied in our study. SK Jawahar [16] found that 50% of the patients were satisfied with the cleanliness at a super specialty hospital of India. Whereas studies by Prasanna K S. et al [17] & Krupal Joshi [2] found that patients were fully satisfied in respect to seating arrangement, cleanliness in the OPD, which was almost similar to our study.

In a study from Iran, [18] it was found that financial aspects had the weakest associations with the patient satisfaction. Majority of the respondents in our study were satisfied with what they paid, but one-third of the surgery patients expressed that the surgery cost was high. The cost of service was found as the main area of dissatisfaction in a Nigerian study [13] also.

The satisfaction levels of patients will be different in different studies as it depends upon respondent's socio-economic background, personality, and perceptions; some may be satisfied with average services, while others may be dissatisfied even with the best. There were some suggestions from the respondents which include-reduce the price of the spectacles, increase number of the doctors, reduce surgery charge, improve canteen facilities, increase manpower in the registration, make the kids zone bigger etc.

## **5. CONCLUSION**

Patient satisfaction survey is a better option to monitor the qualities of existing service facilities and thereby the area of improvement. This study revealing the patient satisfaction of outdoor and inpatient visited to receive services. Satisfaction level depends on different indicators. A minimum portion shows dissatisfaction on surgery cost. We recommend for take necessary steps by the management to rethink on the issues where patient showed their dissatisfaction. We also recommend conducting the survey at a regular interval as to provide quality services to the patients always.

## COMPETING INTERESTS DISCLAIMER:

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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