



## Original Article

# Levels of Patient Satisfaction Regarding Healthcare Services in Upazila Health Complexes

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### Abstract

**Background:** Patient satisfaction always influences a person to estimate the quality of their healthcare experiences and maintains a continuous relationship with the physicians. The scope of healthcare services varies from country to country. **Methodology:** A hospital-based cross-sectional study was conducted to assess the levels of patient satisfaction regarding healthcare services among the 202 patients in the purposively selected Upazilla Health Complexes (UHCs) located in Dhaka, Bangladesh. **Results:** The mean age of the service receivers was 38.88±12.48 years, more than half (56.9%) were homemakers and had no formal education (32.7%), and they came from lower-income families (83.7%). Two-thirds (65.8%) of the patients have received services from OPD. Above half of the patients (59.0%) were satisfied with the services of the UHCs. The satisfaction with doctors was statistically significant with patient occupation and family income; satisfaction with nurse's services was significant with patient's education, occupation, and family income; satisfaction with paramedical services was significant with patient's age and family income. Satisfaction about treatment, cleanliness, environment, and health services of the UHCs were significant with education. Satisfaction with investigation services was significant with education and family income. The patient's occupation was also significant with the levels of patient satisfaction. **Conclusion:** To improve the patient satisfaction proper attention should be given to the cleanliness of the UHCs and informing people about all the services of the UHCs.

**Key words:** Patient's satisfaction, Upazilla health complex, Healthcare Services.

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### Introduction

Health is a basic human need that is viewed as a barometer of human growth<sup>1</sup>. The indicators of health in Bangladesh have significantly improved over those in other Asian nations. Yet, Bangladesh's public health services were not client-centered, based on needs or affordable for the poor<sup>2</sup>. Greater patient satisfaction levels are correlated with greater patient engagement, dedication to care and adherence to advised management, all of which improve health outcomes<sup>3</sup>.

Patient satisfaction with the healthcare services is considered as a key factor of quality healthcare. The main patient satisfaction concepts were developed and issued in 1980 with extra recent concepts being large "restatements" of those patient satisfaction concepts<sup>4</sup>. It is one of the recognized yardsticks to measure the achievement of the services being provided in the hospitals<sup>5</sup>. In the absence of healthcare service quality indicators, measuring patient satisfaction can be useful in determining the caliber of the healthcare provided and the responsiveness of the healthcare system<sup>3</sup>.

A pleased patient is more likely to grow profound and well communication with healthcare providers, enhance compliance, continuity of care and better outcomes<sup>6</sup>. Determining the levels of satisfaction of the patients is essential to improve the health care services according to the patient's demands. It is a useful indicator for measuring healthcare services quality<sup>7</sup>. It also captures the voice of the consumers and determines the success of healthcare facilities<sup>8</sup>.

The goal of the healthcare system is to distribute equitable, effective, and manageable healthcare services to improve patient satisfaction<sup>7</sup>. It is very important for providing patients with the finest possible care in the modern healthcare system. It also permits healthcare providers to find out their lacking as well as meet the expectations of their patients. The quantity of patients' satisfaction is becoming gradually popular because of its role in quality assurance and non-stop quality improvement system. It can address by the dependability of services or the assurance that services are provided in a consistent and trustworthy manner, awareness

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of services to meet clients' needs and safety of healthcare services<sup>9</sup>.

In Bangladesh, there are 413 UHCs, each with 31 to 50 beds as well as certain diagnostic, x-ray, and ambulance amenities<sup>10</sup>. Unfortunately, there is a dearth of high-quality medical care for patients' satisfaction in public healthcare institutions in rural areas<sup>5</sup>. But patients of both urban and rural hospitals are not satisfied with the health care services provided by hospitals<sup>11</sup>. Bangladeshi cultural values have a significant impact on service quality and patient satisfaction with primary care. In developing nations, expectations and assessments of quality are also quite complicated and individualized<sup>12</sup>. Patient satisfaction has long been seen as a crucial factor in evaluating healthcare results and standards of service. The importance of patient attitude in health planning and delivery is highlighted by the rising consumerism in society. Additionally, a content patient is more likely to build a stronger and longer-lasting relationship with their healthcare professionals, which will ultimately result in better compliance, continuity of care, and outcome<sup>13</sup>.

Bangladesh offers free healthcare to its citizens through 10,723 community clinics, which offer one-stop medical services that are essential in ensuring primary healthcare. Assessing beneficiary satisfaction is essential to enhancing the standard of care, and people's perceptions of the value of the services have a big impact on how frequently they utilize such services<sup>14</sup>. It is important to understand a patient's satisfaction with the implementation of quality improvement programs<sup>15</sup>. In many developing countries, accreditation programs have been implemented as a regulatory tool to ensure the quality of service and efficient use of resources<sup>16</sup>. The primary factor affecting the quality of services at UHC is the attitude and responsiveness of the care providers to patient needs. To deliver responsive services, the doctor-patient and doctor-nurse ratios must both be improved from their current levels<sup>17</sup>. Throughout, the global patient satisfaction studies are widely used to evaluate the quality of care as well as public health programs' acceptability and impact.

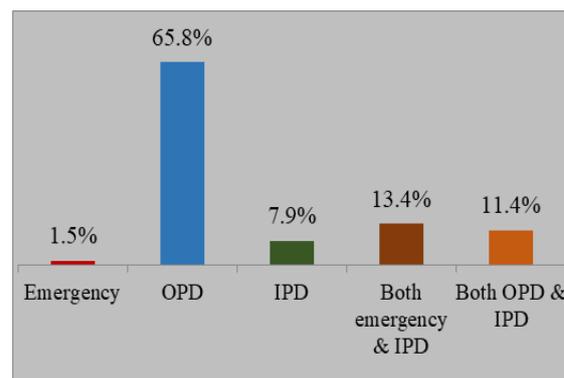
## Materials and Methods

**Study design and settings:** This is a hospital-based cross-sectional study that was carried out to assess the levels of patient satisfaction regarding healthcare services among the 202 patients in the purposively selected two Upazilla Health Complexes (UHCs) named Raipura UHC, Narsingdi and Bhairab UHC, Kishoreganj located in Dhaka, Bangladesh. **Data collection and processing:** A pre-tested semi-structured questionnaire was used for data collection through face-to-face interviews after obtaining informed written consent from each participant.

Data were collected conveniently from the patients, who received health services from the outpatient department (OPD), indoor patient department (IPD) and emergency department. A customized 'Patient Satisfaction Questionnaire 18' (PSQ-18) scale was used to measure the levels of patient satisfaction. **Data analysis:** The data was checked and cleaned followed by making a template, categorizing data, coding, and recording into IBM SPSS v23. The analysis was carried out by using both descriptive and inferential statistics and presented with frequency tables and charts. **Ethical approval:** Ethical approval was obtained from the Institutional Review Board (IRB) of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh. (NIPSOM/IRB/2019/111).

## Results

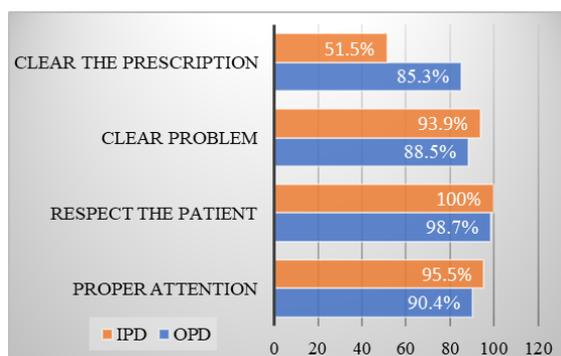
Table-I shows the socio-demographic characteristics of the respondents. The mean age of the respondents was 38.88±12.48 years with the age range 20-80 years, where the majority (66.3%) of the respondents were female with above four-fifths (82.7%) were married and above half (56.9%) were homemakers. Regarding education, one-third (32.7%) had no formal education and above four-fifths (83.7%) of respondents came from lower-income families (<20,000 BDT). Figure-1 illustrates that two-thirds (65.8%) received OPD services and only 1.5% received emergency services in the UHCs.



**Figure-1: Types of healthcare services received by the respondents (n=202)**

Table-II demonstrates the basic facilities provided in the UHCs. Regarding administrative services, 55.0% of respondents said about the presence of citizen charter, 27.2% said about the presence of reception, cent percent said the presence of ticket counter, 89.6% said about the waiting room, 59.9% said about the toilet, 56.9% said about adequate light, 45% said about adequate fan and only 1.5% said there was generator or IPS in the UHCs. Regarding utilities and supports services, 55.4% said about the ambulance, 64.4% said there was trolley or wheelchair, 88.6% said the presence of X-ray machine, and 60.9% said USG machine was

present in the UHCs. Cent percent of respondents said the presence of waste bin, 92.6% said the presence of pharmacy and 49.5% said the presence of security system in the UHCs.



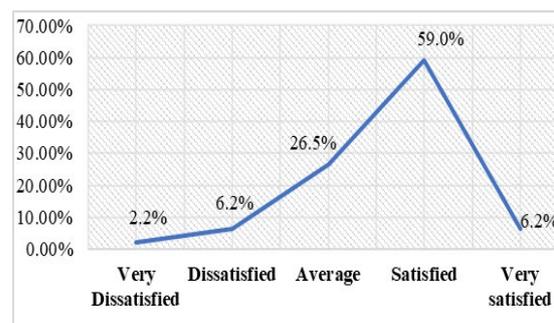
**Figure-2: Doctor's attitudes in OPD and IPD services**

**Table-I: Socio demographic characteristics of the respondents (n=202)**

Characteristics		n (%)
Age groups (years)	20-40	123 (60.9)
	41-60	72 (35.6)
	>60	7 (3.5)
	Mean±SD = 38.88±12.48	
Sex	Female	134 (66.3)
	Male	38 (33.7)
Marital status	Married	167 (82.7)
	Unmarried	19 (9.4)
	Others (Widow and divorced)	16 (7.9)
Education	No formal education	66 (32.7)
	Primary	62 (30.7)
	Secondary	48 (23.8)
	Higher secondary	14 (6.9)
	Graduation and above	12 (5.9)
Occupation	Unemployed	2 (1.0)
	Homemakers	115 (56.9)
	Services	24 (11.8)
	Farmers	22 (10.9)
	Businessmen	19 (9.4)
	Others (Students Day labors, retired persons)	20 (10.0)
Residence	Urban	21 (15.3)
	Rural	171 (84.7)
Monthly family income (BDT)	<20,000	169 (83.7)
	≥20,000-40,000	20 (9.9)
	>40,000	13 (6.4)

Figure-2 depicts the attitudes of the doctors in the provision of OPD and IPD services. Among the respondents, 90.4% said the doctor gave proper attention, 98.7% said the doctor did respect the patients, 88.5% said the doctor cleared the problems and 85.3% said the doctor cleared the prescription to the patients in OPD services. Besides, 95.5% said the doctor gave proper attention, cent percent said the doctor did respect the patients, 93.9% said the doctor cleared the problems and 51.5% said the doctor cleared the prescription to the patients in IPD services.

Table-III describes the responses of the patients about the services in the UHCs. Among the respondents, 27.0% faced problems during ticket collection and among them, 55.5% had faced no discipline during ticket collection. 38.6% of the respondents said the toilet was not cleaned, 86.6% said staff behavior was good, 49.5% said the outlook of the hospital was good, 49.1% said food taste was average, 69.7% said didn't change bedsheets. The majority said doctors (78.8%) and nurses (63.6%) visited IPD 1 to 3 times daily, majority of the patients didn't know whether X-ray machine (36.9%), USG (56.9%) and ambulance (57.1%) were functioning or not, and 60.4% known about the availability of medicines in the hospital pharmacy. Regarding doing the investigation, 65.8% of respondents said they did investigations outside the UHCs and among them, 62.4% did due to a doctor's suggestion.



**Figure-3: Level of patient satisfaction about UHCs provided services (n=202)**

Table-IV construes the patient's satisfaction with UHCs provided services and providers. The majority were satisfied with the doctor (67.8%), nurse (58.9%), paramedic (62.9%), treatment (81.7%), investigation (59.4%), environment (42.6%) and health service (68.3%) but 40.6% said to average about the cleanliness of the hospital. Figure-3 enterprises the level of patient satisfaction with UHCs provided services. Above half of the patients (59.0%) were satisfied and only 2.20% were very dissatisfied with the services of the UHCs.

Table-V interprets the association between patient satisfaction factors and socio-demographic

characteristics. The satisfaction with doctors was statistically significant with patient's occupation and family income ( $p < 0.05$ ); satisfaction with nurse's services was significant with patient's education, occupation, and family income ( $p < 0.05$ ); satisfaction with paramedic's services was significant with patient's age and family income ( $p < 0.05$ ). Satisfaction about treatment, cleanliness,

environment, and health services of the UHCs were significant with education ( $p < 0.05$ ) and satisfaction about investigation services was significant with education and family income ( $p < 0.05$ ).

Table-VI interprets that the patient occupation was statistically significant with the levels of patient satisfaction.

**Table-II: Respondent's opinion towards basic facilities provided in the UHCs (n=202)**

Basic facilities in the UHCs		Yes	No	Don't know
		n (%)	n (%)	n (%)
Administrative services	Citizen charter	111 (55.0)	9 (4.5)	82 (40.6)
	Reception	55 (27.2)	113 (55.9)	34 (16.8)
	Ticket counter	202 (100)	0 (0)	0 (0)
	Waiting room	181 (89.6)	15 (7.4)	6 (3.0)
	Toilet	121 (59.9)	37 (18.3)	44 (21.8)
	Adequate lights	115 (56.9)	87 (43.1)	0 (0)
	Adequate fans	91 (45.0)	104 (51.5)	7 (3.5)
Utilities and supports services	Generator or IPS	3 (1.5)	119 (58.9)	80 (39.6)
	Ambulance	112 (55.4)	11 (5.4)	79 (39.1)
	Trolley or wheelchair	130 (64.4)	43 (21.3)	29 (14.4)
	X-ray machine	189 (88.6)	23 (11.4)	0 (0)
	USG machine	123 (60.9)	14 (6.9)	65 (32.2)
	Waste bin	202 (100)	0 (0)	0 (0)
	Pharmacy	187 (92.6)	15 (7.4)	0 (0)
Security system	100 (49.5)	15 (7.4)	87 (43.1)	

**Table-III: Distribution of the respondents by the opinion**

Responses	n (%)	
Problem face during ticket collection (n=202)	Yes	54 (27.0)
	No	148 (73.0)
Types of problem facing during ticket collection (n=54)	Faced long queues	19 (35.2)
	Faced no discipline	30 (55.5)
	Others	5 (9.3)
Cleanliness of toilet (n=202)	Not good	78 (38.6)
	Good	48 (23.8)
	Average	76 (37.6)
Behavior of the stuff (n=202)	Good	175 (86.6)
	Average	13 (6.4)
	Bad	14 (6.9)
Outlook of hospital (n=202)	Not good	4 (2.0)
	Good	100 (49.5)
	Average	89 (44.1)
	Very good	5 (2.5)
	Excellent	4 (2.0)
Taste of food (n=55)	Good	26 (47.3)
	Average	27 (49.1)
	Bad	2 (3.6)

**Contd.**

Responses		n (%)
Bed sheet change (n=66)	3 to 4 days	2 (3.0)
	5 to 6 days	10 (15.2)
	Don't change	46 (69.7)
	Don't know	8 (6.1)
Doctor visit in IPD (n=66)	1 to 3 times	52 (78.8)
	According to need	14 (21.2)
Nurse visit in IPD (n=66)	1 to 3 times	42 (63.6)
	4 to 6 times	3 (4.5)
	According to need	17 (25.8)
	Don't come	4 (6.1)
Functioning X-ray machine (n=179)	Yes	57 (31.8)
	No	56 (31.3)
	Don't know	66 (36.9)
Functioning USG machine (n=123)	Yes	0 (0)
	No	53 (43.1)
	Don't know	70 (56.9)
Functioning of ambulance (n=112)	Yes	45 (40.2)
	No	3 (2.7)
	Don't know	64 (57.1)
Availability of medicines (n=187)	Yes	113 (60.4)
	No	73 (39.1)
	Don't know	1 (0.5)
Doing investigation outside the UHCs (n=202)	Yes	133 (65.8)
	No	69 (34.2)
Investigation doing outside hospital's laboratory (n=133)	Willingly	46 (34.6)
	Doctor's suggestion	83 (62.4)
	Have no faith	4 (3.0)

**Table-IV: Patient satisfaction with UHCs provided services and providers (n=202)**

Factors	Very dissatisfied	Dissatisfied	Average	Satisfied	Very satisfied
	n (%)	n (%)	n (%)	n (%)	n (%)
Doctors	0 (0)	7 (3.5)	37 (18.3)	137 (67.8)	21 (10.4)
Nurses	2 (1)	10 (5)	59 (29.2)	119 (58.9)	12 (5.9)
Paramedics	0 (0)	0 (0)	66 (32.7)	127 (62.9)	9 (4.5)
Treatments	0 (0)	1 (0.5)	22 (10.9)	165 (81.7)	14 (6.9)
Investigations	0 (0)	34 (16.8)	36 (17.8)	120 (59.4)	12 (5.9)
Cleanliness	28 (13.9)	23 (11.4)	82 (40.6)	61 (30.2)	8 (4)
Environment	5 (2.5)	25 (12.4)	73 (36.1)	86 (42.6)	13 (6.4)
Health services	0 (0)	0 (0)	53 (26.2)	138 (68.3)	11 (5.4)

**Table-V: Association of patient satisfaction factors with socio-demographic characteristics (n=202)**

Patient's satisfaction factors	Patient's socio-demographic characteristics				
	Age	Gender	Education	Occupation	Family income
	p-value	p-value	p-value	p-value	p-value
Doctors	0.641	0.908	0.082	*0.002	*0.039
Nurses	0.108	0.264	*0.003	*0.047	*0.037
Paramedics	*0.002	0.078	0.113	*0.053	*0.019
Treatments	0.208	0.537	0.037	1.000	*0.015
Investigations	0.166	0.447	*0.010	0.284	*0.011
Cleanliness	0.330	0.270	0.121	0.188	*0.017
Environment	0.139	0.767	0.026	0.211	*0.031
Health services	0.373	0.213	0.017	0.277	*0.013

\*Statistically significant Fisher's exact test

**Table-VI: Association of socio-demographic characteristics with the levels of patient satisfaction (n=202)**

Socio-demographic characteristics	Levels of patient's satisfaction					p-value
	Very dissatisfied	Dissatisfied	Average	Satisfied	Very satisfied	
	n (%)	n (%)	n (%)	n (%)	n (%)	
<b>Age groups (years)</b>						
20-40	2 (50.0)	9 (69.3)	36 (68.0)	69 (58.0)	7 (53.8)	†0.899
41-60	2 (50.0)	4 (30.8)	17 (32.0)	47 (39.5)	6 (46.2)	
>60	0 (0)	0 (0)	0 (0)	3 (2.5)	0 (0)	
<b>Gender</b>						
Male	1 (25.0)	5 (38.5)	22 (41.5)	35 (29.4)	5 (38.5)	†0.572
Female	3 (75.0)	8 (61.5)	31 (58.5)	84 (70.6)	8 (61.5)	
<b>Education</b>						
No formal education	2 (50.0)	1 (7.7)	11 (20.8)	47 (39.5)	5 (38.5)	†0.104
Primary	1 (25.0)	2 (15.4)	17 (32.1)	35 (29.4)	7 (53.8)	
Secondary	0 (0)	2 (15.4)	3 (5.7)	8 (6.7)	0 (0)	
Higher secondary	1 (25.0)	1 (7.7)	5 (9.4)	7 (5.9)	0 (0)	
Graduation and above	0 (0)	1 (7.7)	6 (11.4)	4 (1.7)	1 (7.7)	
<b>Occupation</b>						
Unemployed	0 (0)	0 (0)	0 (0)	2 (1.7)	0 (0)	*†0.010
Homemaker	3 (75.0)	4 (30.7)	27 (50.9)	73 (61.3)	8 (8.3)	
Services	0 (0)	2 (15.4)	12 (22.6)	9 (7.6)	1 (7.7)	
Farmer	0 (0)	2 (15.4)	6 (11.3)	13 (10.9)	1 (7.7)	
Business	0 (0)	2 (15.4)	2 (3.8)	12 (10.1)	3 (23.1)	
Others (Student, day labor, retired person)	1 (25.0)	3 (23.1)	6 (11.3)	10 (8.4)	0 (0)	
<b>Residence</b>						
Urban	0 (0)	1 (7.7)	9 (17.0)	18 (15.1)	3 (23.1)	†0.805
Rural	4 (100)	12 (92.3)	44 (83.0)	101 (84.9)	10 (76.9)	
<b>Monthly household income (BDT)</b>						
<20,000	2 (50.0)	11 (84.6)	46 (86.7)	100 (84.0)	10 (77.0)	†0.059
≥20,000-40,000	2 (50.0)	2(15.4)	7 (13.3)	8 (6.7)	1 (7.7)	
>40,000	0 (0)	0 (0)	0 (0)	11 (9.2)	2 (15.4)	

\*Statistically significant †Fisher's exact test

### Discussion

The mean age was 38.89±12.48 years with the age range 20-80 years. Among all the respondent's majority (66.3%) were female. A study done in Gujarat observed the male-female ratio was 42:58<sup>18</sup>. But another study in Southern Saudi Arabia found that 50.8% were male<sup>19</sup>. Among all patients, two-thirds (65.8%) received OPD services in the UHCs. It was also observed that the majority (32.7%) of the respondents had no formal education and 30.7% had primary education. In another study, 70% of patients were either illiterate or educated up to the primary level<sup>18</sup>. Most of the respondents (56.9%) were homemakers and had family income of less than 20,000 BDT (83.7%), which is like another study<sup>2</sup>.

The majority were satisfied with the doctor (67.8%), nurse (58.9%), paramedic (62.9%), treatment (81.7%), investigation (59.4%), environment (42.6%) and health service (68.3%) but 40.6% said

to average about the cleanliness of the hospital. Above half of the patients (59.0%) were satisfied and only 2.20% were very dissatisfied with the services of the UHCs. The satisfaction with doctors was significant with patient occupation and family income; satisfaction with nurse's services was significant with patient's education, occupation, and family income; satisfaction with paramedic services was significant with patient's age and family income. Satisfaction about treatment, cleanliness, environment, and health services of the UHCs were significant with education and satisfaction about investigation services was significant with education and family income. The patient's occupation was significant with the levels of patient satisfaction. In a study, it was observed that overall satisfaction with the primary healthcare system was 3.9% very much and 66.7% suitable. Overall satisfaction and different domains of satisfaction (p>0.05) were not affected by gender<sup>5</sup>. A study

showed that 96.6% of the patients were satisfied with the behavior of doctors, nurses (84.4%), pharmacists (72.0%) and supporting staff (83.5%). The majority (76.2%) of the respondents stated that doctors were cooperative in explaining the reason for medical tests<sup>2</sup>. Another study showed Almost 90% of respondents indicated that they were satisfied with their period of inpatient care and this study suggests that age is an important factor in reported satisfaction<sup>20</sup>. A study conducted in Lahore observed that most of the patients reported being satisfied with the doctor<sup>21</sup>. In another study, they also observed similar findings, there was age and education were significant with the satisfaction of observed people with higher levels of education felt that the clinic service was less effective than those who were less educated ( $p=0.007$ )<sup>2</sup>.

The relationships between the socio-demographic characteristics of patients and their different dimensions of satisfaction may help healthcare providers to meet the different needs of patients based on their gender, age and socioeconomic status<sup>6</sup>. The results agree with previous patient satisfaction research but go further in indicating that more meaningful information is gained when patients are asked to report on specific aspects of their experience of care.

### Conclusion

This study revealed that patients are satisfied with the healthcare services if the health system is responsive in terms of respect for dignity, prompt attention and meeting their expectations. Paying attention to the client's satisfaction is a basic step for quality enhancement and should be done spasmodically.

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### Conflict of interest

The authors declared that they have no conflict of interest.

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