

ASSESSMENT OF PATIENT SATISFACTION IN THE OUTPATIENT DEPARTMENT (OPD) OF A MEDICAL COLLEGE HOSPITAL IN DHAKA, BANGLADESH

Tawfiq Aziz^{1*}, Sarah Ahmed Tamanna², Fariha Nowshin², Daania Hazakat³,
Mushfika Binte Anwar³, Kashfa Islam³

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ABSTRACT

Reviewed by

Taslina Zaman
United Medical College & Hospital
Dhaka, Bangladesh.

Farhana Kaniz Mouri
Medical College for Women & Hospital
Dhaka, Bangladesh.

* Correspondence

Tawfiq Aziz
Email: azizt12@yahoo.com,
Orcid id: <https://orcid.org/0009-0003-4067-3517>

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Background: Patient satisfaction is a major indicator of healthcare quality, yet evidence from high-volume tertiary Out Patient Departments (OPDs) in Bangladesh is limited. **Objective:** To assess patient satisfaction in the OPD of a tertiary medical college hospital in Dhaka. **Materials and Method:** A descriptive cross-sectional study was conducted from September–November 2025 among 521 OPD patients selected by systematic random sampling (every 5th patient). Data were collected using a pretested Bangla questionnaire (25 items, 7 domains; 5-point Likert scale). SPSS version 25 was used for descriptive statistics and chi-square tests ($p < 0.05$). **Results:** Among 521 participants, most were 21–40 years (61.2%), female (66%), and from lower- to middle-income groups. Overall satisfaction was high: 56.8% strongly agreed they were satisfied, and 69.3% would recommend the hospital. Doctor interaction received the strongest approval (>70% strongly agreeing across items). Infrastructure showed weaker areas, particularly seating (32.2% strongly agreeing) and washroom facilities (32.6%). Education ($p = 0.001$) and income ($p = 0.011$) were significantly associated with satisfaction, while age, sex, occupation, and visit status were not. All OPD service domains showed strong associations with satisfaction ($p < .001$). **Conclusion:** High satisfaction levels were driven by strong doctor interaction and treatment clarity, while infrastructural gaps especially seating, washrooms, and delay in communication require improvement. Strengthening these areas may enhance overall patient experience and build trust in tertiary hospital services.

Keywords: Patient satisfaction, OPD services, Tertiary hospital, Service quality, Bangladesh.

INTRODUCTION

Patient satisfaction refers to the alignment between a patient's expectations of ideal care and their perception of the care actually received^{1,2}. It is a key indicator for evaluating healthcare quality and a central component of modern health system monitoring²⁻⁴. The OPD, often described as the hospital's "shop-window," forms the first and most influential point of patient contact^{4,5}. In Bangladesh, satisfaction levels vary widely: private tertiary hospitals report high satisfaction, such as 92.24% for physician behavior and 75.93% for auxiliary staff, while government facilities show lower levels, around 68.9%^{2,3}. CMH Bogra has reported up to 95% satisfaction, whereas Sylhet tertiary hospitals report 62.3%^{6,7} and some national assessments indicate even lower rates of 22–57% due to service gaps². International patterns also vary, with India reporting 68.13–84% satisfaction^{5,8}, Pakistan 86.2–97%^{1,3}.

1* Department of Medicine, Medical College for Women & Hospital, Dhaka, Bangladesh. Email: azizt12@yahoo.com, Orcid id: <https://orcid.org/0009-0003-4067-3517>, [Corresponding Author].

2 Department of Community Medicine & Public Health, Medical College for Women & Hospital, Dhaka, Bangladesh

3 Internee, Medical College for Women & Hospital, Dhaka, Bangladesh.

Ethiopia a pooled prevalence of 61.95%⁹ and China as low as 27.3% in overcrowded tertiary settings¹⁰. Satisfaction is shaped by clinical competence, communication, waiting time, facility cleanliness, and staff behavior^{4,5,11,12}. Understanding these interacting domains is essential for improving OPD service quality and explaining the wide variation across settings^{3,4,14}.

This study addresses the lack of context-specific OPD evaluations in Bangladesh's tertiary private hospitals by assessing patient satisfaction at the Medical College for Women & Hospital. As shown in Figure 1, the structural and process components examined collectively shape the overall patient experience and help explain the wide variation in satisfaction levels across different OPD settings.

MATERIALS AND METHOD

Study Area and Period

This study was conducted in the outpatient departments of Medical College for Women & Hospital, Uttara, and Dhaka, covering Internal Medicine, Surgery, Dermatology, Gynecology, Eye, ENT, Orthopedics, and Emergency. Data were collected from September to November 2025.

Sample Size Determination

Sample size was calculated using the single proportion formula with a 95% confidence interval, $p = 0.5$, and a 5% margin of error, yielding 384. After applying a design effect of 1.2, the figure increased to 461. Adjusting for a 10% non-response rate resulted in a target of 512 participants. Ultimately, 521 patients were included in the study.

Sampling Technique and Procedures:

Systematic random sampling was used, selecting every 5th eligible patient exiting OPD consultation rooms. Adults aged ≥ 18 years providing informed consent were included. Critically ill patients, those with cognitive impairment, and unwilling individuals were excluded.

Data Collection and Data Quality Management

Data were collected through 5–7 minute structured interviews conducted by trained interns, using a pretested Bangla questionnaire containing 25 Likert-scale items across seven satisfaction domains and demographic variables. Completed questionnaires were reviewed daily for completeness, and all data were anonymized and securely coded.

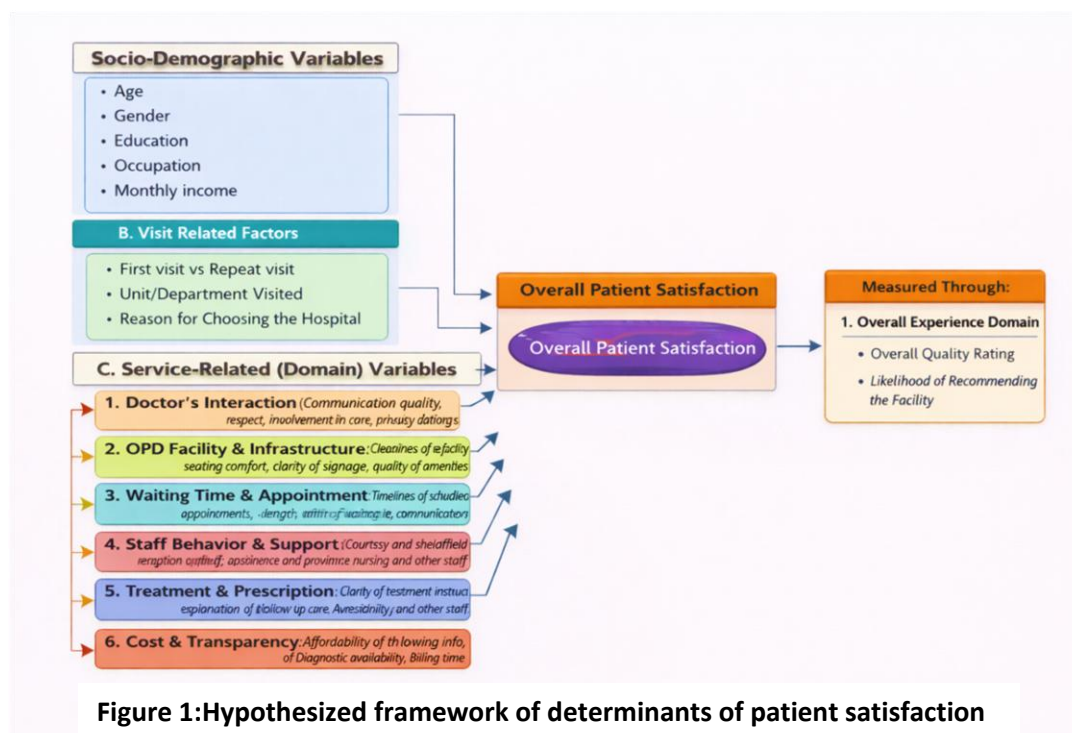


Figure 1: Hypothesized framework of determinants of patient satisfaction

Operational Definitions

Patient Satisfaction: The degree of agreement between a patient's expectations of ideal care and their perception of the actual care received ^{2,15}. It reflects positive reactions to services, while dissatisfaction represents negative reactions ¹⁵.

Outpatient Department (OPD): The OPD is the section of the hospital staffed and equipped to provide diagnostic, therapeutic, and rehabilitative care to patients who are not registered as inpatients and do not stay overnight ^{5,11}.

Quality of Care: A multidimensional construct defined through three domains: structure (infrastructure and physical resources), process (how care is delivered), and outcome (results of care, commonly reflected by patient satisfaction) ¹¹.

Waiting Time: The duration from a patient's arrival at triage until being seen by a physician ¹⁵.

Consultation Time: This refers specifically to the time the patient spends discussing health matters directly with the physician ¹⁵.

Healthcare Quality: The degree to which care aligns with established standards shown to improve health outcomes ⁴.

Satisfaction Domains: Patient satisfaction in this study was measured across seven outpatient care domains using a 5-point Likert scale. The domains included doctor–patient interaction, infrastructure, waiting time, staff behavior, treatment clarity, cost transparency, and overall experience. Scores for each domain were classified as poor, average, or good.

Data Processing and Analysis

Data were entered into SPSS version 25. Descriptive statistics summarized participant characteristics. Chi-square tests assessed associations between satisfaction categories and demographic or service-related variables, with significance set at $p < 0.05$.

Ethical Considerations

Ethical approval was granted by the Institutional Review Board of the Medical College for Women & Hospital. Written informed consent, confidentiality, and voluntary participation were ensured.

RESULTS

Participant demographic characteristics: Table 1 shows that most of the 521 participants were young to middle-aged (61.2% aged 21–40) and predominantly female. Education was mainly secondary or higher secondary, nearly half were homemakers, and most earned 20,000–60,000 BDT. Overall, the sample reflected a typical OPD population of moderately educated, middle-income adult females.

Table 1: Demographic characteristics of the participants (N=521)

Variables	Frequency (n)	Percentage (%)
Age group (years)		
<20	22	4.2
21–40	319	61.2
41–60	153	29.4
>60	27	5.2
Gender		
Male	177	34.0
Female	344	66.0
Educational status		
No formal education	67	12.9

Table 1 continued

Variables	Frequency (n)	Percentage (%)
Primary	93	17.7
Secondary	145	27.8
Higher secondary	159	30.5
Graduation & above	57	10.9
Occupation		
Unemployed	15	2.9
Homemaker	250	48.0
Service	92	17.7
Business	81	15.5
Day labor	12	2.3
Student	64	12.3
Others	7	1.3
Monthly income (BDT)		
<20000	47	9.0
20000–40000	222	42.6
41000–60000	158	30.3
61000–80000	52	10.0
81000–100000	37	7.1
>100000	5	1.0

N=Number of participants

Visit-related characteristics: Table 2 shows that most patients were repeat visitors (73.7%) and mainly attended Medicine (45.1%). Doctor reputation was the leading reason for visiting (38.6%), followed by proximity (18.2%) and prior positive experience (17.5%). Other reasons were less common.

Table 2: Visit-related characteristics of the participants (N = 521)

Variables	Frequency (n)	Percentage (%)
Hospital visited		
First	137	26.3
Frequently/Repeated	384	73.7
Department visited		
Medicine	235	45.1
Surgery	107	20.5
Obstetrics & Gynecology	89	17.1
Pediatrics	10	1.9
Ophthalmology (Eye)	15	2.9
ENT	25	4.8
Orthopaedics	28	5.4
Emergency	12	2.3
Reason for visit		
Proximity to home	95	18.2
Reputation of doctors	201	38.6
Quality of service	24	4.6
Previous positive experience	91	17.5
Referral from another facility	28	5.4
Affordable services	55	10.6
Recommended by family/friends	27	5.2

N=Number of participants

Patient responses across OPD service: Table 3 shows high satisfaction across domains. Over 70% rated doctor interaction very positively, and most approved facility cleanliness and signage, though seating and washrooms were weaker. Around 80% found waiting times reasonable, staff behavior was well rated, and treatment clarity scored 68–72% strong agreement. Cost transparency was favorable, though billing time was mixed. Overall, 56.8% were strongly satisfied and 69.3% would recommend the hospital.

Table 3: Distribution of patient responses across OPD service domains (N = 521)

Variables	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
1. Doctor's Interaction					
The doctor listened carefully to my problems.	2 (.4)	----	2(.4)	114(21.8)	403(77.4)
The doctor explained my condition in an understandable way.	----	1(.2)	10(1.9)	137(26.3)	373(71.6)
I felt the doctor respected me during the consultation.	----	1(.2)	8(1.6)	146(28.0)	366(70.2)
The doctor involved me in decision-making about my treatment.	----	49(9.4)	54(10.4)	75(14.4)	343(65.8)
The doctor ensured privacy during examination.	1(.2)	2(.4)	4(.8)	148(28.4)	366(70.2)
2. OPD Facility and Infrastructure					
The waiting area was clean and comfortable.	19(3.6)	14(2.7)	45(8.6)	189(36.3)	254(48.8)
The signage and directions were easy to follow.	9(1.7)	14(2.7)	65(12.5)	191(36.7)	242(46.4)
There were adequate seating arrangements.	35(6.7)	41(7.9)	85(16.3)	192(36.9)	168(32.2)
The washroom and drinking water facilities were satisfactory.	17(3.3)	39(7.5)	122(23.4)	173(33.2)	170(32.6)
3. Waiting Time and Appointment					
I was able to get an appointment in a timely manner.	14(2.7)	15(2.9)	75(14.4)	218(41.8)	199(38.2)
The waiting time on the day of the visit was reasonable.	23(4.4)	25(4.8)	78(15.0)	232(44.5)	163(31.3)
I was informed if there was any delay in seeing the doctor.	20(3.8)	14(2.7)	89(17.1)	200(38.4)	198(38.0)
4. Staff Behavior and Support					
The reception staffs were courteous and helpful.	13(2.5)	25(4.8)	121(23.2)	182(34.9)	180(34.5)
The nursing staff assisted me adequately.	7(1.3)	14(2.7)	175(33.6)	144(27.6)	181(34.7)
I was satisfied with the reception in guiding me to the appropriate doctor to consult.	4(.8)	5(1.0)	67(12.9)	141(27.1)	304(58.3)
5. Treatment and Prescription					
I received clear instructions about medications, tests & available treatment options.	1(.2)		16(3.1)	147(28.2)	357(68.5)
I was satisfied with the treatment provided to me.	----	----	12(2.3)	137(26.3)	372(71.4)
The follow-up plan was properly explained to me.	1(.2)	----	6(1.2)	138(26.5)	376(72.2)

Table 3 continued

Variables	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
Availability of drugs & supplies in the hospital pharmacy	8(1.5)	3(.6)	30(5.8)	167(32.1)	313(60.1)
6. Cost and Transparency					
The consultation charges were reasonable.	1(.2)	7(1.3)	35(6.7)	183(35.1)	295(56.6)
I was informed about costs before any additional tests or procedures.	1(.2)	59(11.3)	63(12.1)	88(16.9)	310(59.5)
I was satisfied with the availability of investigations and diagnostic facilities in the hospital.	2(.4)	3(.6)	15(2.9)	177(34.0)	324(62.2)
I was satisfied with the waiting time required to complete the billing process	58(11.1)	13(2.5)	33(6.3)	174(33.4)	243(46.6)
7. Overall Experience					
I am satisfied with the overall quality of OPD service.	3(.6)	4(.8)	27(5.2)	191(36.7)	296(56.8)
I would recommend this hospital/clinic to others.	1(.2)	----	13(2.5)	146(28.0)	361(69.3)

N=Number of participants

Association between demographics and satisfaction: Table 4 shows that only education and monthly income had significant associations with patient satisfaction ($p = 0.001$ and $p = 0.011$), with higher levels linked to better satisfaction. Age, sex, occupation, visit status, and department showed no significant relationships, indicating these factors did not influence satisfaction. Education and income were the key predictors.

Table 4: Association between demographic factors and patient satisfaction (N = 521)

Variables		Patient satisfaction			p value
Demographic factors		Poor	Average	Good	
Age groups (in years)	<20	4 (18.2)	3 (13.6)	15 (68.2)	0.443
	21-40	92 (28.8)	54 (16.9)	173 (54.2)	
	41-60	42 (27.5)	21 (13.7)	90 (58.8)	
	>60	4 (14.8)	7 (25.9)	16 (59.3)	
Sex	Male	46 (26)	32 (18.1)	99 (55.9)	0.711
	Female	96 (27.9)	53 (15.4)	195 (56.7)	
Education	No formal education	34 (50.7)	7 (10.4)	26 (38.8)	0.001
	Primary	26 (28)	11 (11.8)	56 (60.2)	
	Secondary	32 (22.1)	28 (19.3)	85 (58.6)	
	Higher secondary	36 (22.6)	31 (19.5)	92 (57.9)	
	Graduation & above	14 (24.6)	8 (14)	35 (61.4)	
Occupation	Unemployed	3 (20)	4 (26.7)	8 (53.3)	0.783
	Homemaker	72 (28.8)	42(16.8)	136 (54.4)	
	Service	20 (21.7)	12 (13)	60 (65.2)	
	Business	22 (27.2)	16 (19.8)	43(53.1)	
	Day labor	3 (25)	1 (8.3)	8 (66.7)	
	Student	20 (31.3)	10 (15.6)	34(53.1)	
	Others	2(28.6)	0(0)	5(71.4)	
Monthly income	<20000	3 (6.4)	9 (19.1)	35 (74.5)	
	20000-40000	67 (30.2)	27 (12.2)	128 (57.7)	
	41000-60000	46 (29.1)	33 (20.9)	79 (50)	

Variables		Patient satisfaction			<i>p</i> value
Demographic factors		Poor	Average	Good	
	61000-80000	18 (34.6)	10 (19.2)	24 (46.2)	0.011
	81000-100000	6 (16.2)	6 (16.2)	25 (67.6)	
	>100000	2 (40)	0 (0)	3 (60)	
Hospital visited	First	29 (21.2)	21(15.3)	87 (63.5)	0.117
	Repeated	113 (29.4)	64 (16.7)	207 (53.9)	
Department visited	Medicine	56 (23.8)	36 (15.3)	143 (60.9)	0.352
	Surgery	31 (29)	18 (16.8)	58 (54.2)	
	Obs&gynae	32 (36)	19 (21.3)	38 (42.7)	
	Paediatrics	5 (50)	1(10)	4 (40)	
	Ophthalmology	5 (33.3)	2 (13.3)	8(53.3)	
	Ent	6 (24)	4 (16)	15 (60)	
	Orthopaedics	5 (17.9)	3 (10.7)	20 (71.4)	
	Emergency	2(16.7)	2 (16.7)	8 (66.7)	

Statistically significant if $p < 0.05$; N=Number of participants

Service factors associated with patient satisfaction: Table 5 displays that all OPD service domains were strongly associated with overall patient satisfaction ($p < 0.001$). Patients rating doctor interaction, infrastructure, waiting time, staff behavior, treatment quality, or cost transparency as good overwhelmingly reported good satisfaction—often above 80–90%. In contrast, poor ratings in any domain were closely linked with poor satisfaction. These results confirm that service quality across all domains is a major determinant of overall patient satisfaction.

Table 5: Association between OPD service domains and overall patient satisfaction (N = 521)

Variables		Patient satisfaction			<i>p</i> value
		Poor	Average	Good	
Doctor's interaction	Poor	39 (97.5)	1 (2.5)	0 (0)	< 0.001
	Average	86(77.5)	20 (18)	5(4.5)	
	Good	17 (4.6)	64 (17.3)	289 (78.1)	
OPD facility & infrastructure	Poor	26 (50.0)	12 (23.1)	14 (26.9)	< 0.001
	Average	115 (45.6)	58 (23)	79 (31.3)	
	Good	1 (0.5)	15 (6.9)	201 (92.6)	
Waiting time & appointment	Poor	28 (31.1)	34 (37.8)	28 (31.1)	< 0.001
	Average	113 (50.0)	39 (17.3)	74 (32.7)	
	Good	1 (0.5)	12 (5.9)	192 (93.7)	
Staff behavior & support	Poor	35 (71.4)	8 (16.3)	6 (12.2)	< 0.001
	Average	106 (45.7)	59 (25.4)	67 (28.9)	
	Good	1 (0.4)	18 (7.5)	221 (92.1)	
Treatment & prescription	Poor	110 (83.3)	15 (11.4)	7 (5.3)	< 0.001
	Average	26 (38.8)	22 (32.8)	19 (28.4)	
	Good	6 (1.9)	48 (14.9)	268 (83.2)	
Cost & transparency	Poor	80 (92)	5 (5.7)	2 (2.3)	< 0.001
	Average	60 (34.1)	56 (31.8)	60 (34.1)	
	Good	2 (0.8)	24 (9.3)	232 (89.9)	
Overall experience	Poor	23 (71.9)	7 (21.9)	2 (6.3)	< 0.001
	Average	116 (56.9)	46 (22.5)	42 (20.6)	
	Good	3 (1.1)	32 (11.2)	250 (87.7)	

Statistically significant if $p < 0.05$; N=Number of participants

DISCUSSION

This study found high levels of OPD satisfaction influenced by demographic and service-related factors. Most patients were young adults (61.2%) and female (66%), with moderate education and middle-income status (72.9% earning 20,000–60,000 BDT). These characteristics differed from other settings, such as in Jamnagar, where males predominated and illiteracy was high (40%)¹¹, in Al-Nafees Medical Hospital with 60.8% males and matric-level education¹ and in Ethiopia with 40.5% illiteracy and 57.6% male users¹⁵. In contrast, CMH Karachi reported higher female attendance (69%)¹⁴, while Civil Hospital Karachi served mostly uneducated, low-income patients¹². Punjab's facilities reflected broader access with higher education levels³ and private hospitals in Bangladesh showed a strong middle-class base associated with higher satisfaction⁶.

Visit-related characteristics also shaped experience. Most respondents were repeat visitors (73.7%) and mainly attended Medicine department (45.1%). Doctor reputation was the leading reason for visiting (38.6%). Similar trends appeared in Wardha and Al-Nafees^{1,4}. In weaker systems, such as Dangila, Ethiopia, first-time visits were high (84.2%) and queue dissatisfaction severe (76.6%)¹⁵. Bihar's OPD showed 64% walk-ins and 46% delays¹⁶. Overcrowding was a major issue in Civil Hospital Karachi¹². In Bangladesh's private hospital, 45.41% were self-referrals, demonstrating service trust⁶.

Satisfaction with doctor interaction was a major strength in this study: over 70% strongly agreed that doctors listened attentively, explained clearly, and ensured respect and privacy. Comparable findings were reported in Jamnagar (60% adequate listening)¹¹, Al-Nafees (65.1% attentive listening)¹, and Bihar¹⁶, where communication was the primary driver of satisfaction. Conversely, poor communication at Civil Hospital Karachi strongly predicted dissatisfaction (OR = 0.13)¹².

Infrastructure feedback in this study was positive for cleanliness and signage, though seating and washrooms were weaker areas. This mirrors international findings: Jamnagar reported severe deficits (57% dissatisfaction with cleanliness, 69% with toilets)¹¹, while CMH Karachi had >85% satisfaction with infrastructure¹⁴. Punjab's OPDs showed dissatisfaction primarily with diagnostic areas (51–58%)³.

Waiting time performance in this study was strong, with 80% agreeing waiting was reasonable, though delay communication remained weak. In contrast, Dangila's 48-minute average wait and 76.6% queue dissatisfaction severely impacted satisfaction¹⁵. Punjab showed 51–58% dissatisfaction with diagnostic wait times³, while Al-Nafees patients reported moderate waits (15–30 min)¹.

Staff behavior was well rated in this study (58.3% strongly agreed staff guided them appropriately). Positive staff interaction was similarly influential in Wardha⁴ and CMH Karachi¹⁴, while Jamnagar (61% dissatisfaction)¹¹ and Civil Hospital Karachi (14.3% poor behavior) showed strong negative effects¹².

Treatment clarity and follow-up communication were strong in this study (68–72% strong agreement), consistent with findings elsewhere, where satisfaction ranged from 57% in the Healthline Journal¹¹ to 73.3% at Al-Nafees¹ and >85% at CMH Karachi¹⁴. Private hospitals reported the highest clarity (91.69%, Mallik et al.)², while Ethiopia showed 62.5% dissatisfaction¹⁵. Cost transparency was strong in this study, aligning with Ahmed et al. (50.7%)¹ and private hospitals. Rathod et al. showed higher dissatisfaction (52.48%)¹¹ and Rahman et al. had the lowest financial satisfaction (mean 2.62)⁶, highlighting cost as a major barrier.

Overall satisfaction in this study was high, with 56.8% strongly satisfied and 69.3% willing to recommend the hospital. Similar findings were reported by Qureshi et al.¹⁴ and Sundhareshwaran et al.¹⁶, while moderate satisfaction appeared in Jamnagar¹¹ and Punjab³. Lower satisfaction occurred in Ethiopia¹⁵ and Civil Hospital Karachi¹². Private hospitals showed the highest satisfaction². Satisfaction rose with good communication and infrastructure, and fell with overcrowding or poor amenities.

LIMITATIONS

The cross-sectional design limits causality, and interviewer surveys may cause social desirability bias. Single-site data reduce generalizability, self-reports may not reflect true quality, department differences were not examined, and critically ill or cognitively impaired patients were excluded.

CONCLUSION

Overall, patient satisfaction in this tertiary OPD was high, driven mainly by strong doctor–patient interaction, effective treatment communication, and supportive staff behavior. However, infrastructural issues especially seating, washroom facilities, delay communication, and billing time require targeted improvement. Enhancing these service components may further strengthen patient experience and institutional trust.

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CONFLICT OF INTEREST

There is no conflicts of interest.

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