

*Original Article*

# Assessment of Hospitalized Patients' Satisfaction with Healthcare Services in a Private Hospital

Shazma Iqbal<sup>1</sup>, Hajra Sarwar<sup>1</sup>, Maryam Daniel<sup>1</sup>, Saneeta Hameed<sup>1</sup>, Fari Usnat<sup>1</sup>

<sup>1</sup>Department of School of Nursing, Green International University, Lahore, Pakistan

**Correspondence:** shazmaiqbal185@gmail.com

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## ABSTRACT

**Background:** Patient satisfaction is recognized as a vital measure of healthcare quality and is closely associated with improved clinical outcomes, including adherence, reduced readmissions, and overall well-being. Despite the growing importance of private healthcare in Pakistan, limited data exist on inpatient satisfaction levels and associated factors within this context. **Objective:** To assess the level of patient satisfaction with inpatient healthcare services in a private hospital in Lahore, Pakistan, and to examine associations between satisfaction and demographic characteristics. **Methods:** This descriptive cross-sectional study was conducted in a private tertiary hospital in Lahore over a six-month period. A systematic random sample of 100 adult inpatients discharged within a three-month window was surveyed using a structured and pre-tested questionnaire covering key domains of satisfaction. Satisfaction was scored and categorized as low (0–11), moderate (12–13), or high (14–23). Associations between satisfaction and demographic variables were analyzed using chi-square tests. Ethical approval and informed consent were obtained. **Results:** The majority of participants (86%) reported high satisfaction (score  $\geq 14$ ), with unanimous positive responses in domains including medical and nursing care, communication, and environment. Food variety and some administrative aspects received comparatively lower ratings. No statistically significant associations were observed between satisfaction level and age, gender, marital status, education, or occupation (all  $p > 0.05$ ). **Conclusion:** Patients hospitalized in this private tertiary care facility exhibited exceptionally high satisfaction levels across clinical and environmental domains, independent of demographic characteristics. Ongoing feedback and targeted improvements, particularly regarding food services and administrative processes, are recommended to maintain and further enhance patient satisfaction.

**Keywords:** Patient Satisfaction, Healthcare Quality, Hospital Services, Inpatient Care, Private Hospital, Patient Experience, Health Service Evaluation, Quality of Care, Healthcare Delivery

## INTRODUCTION

Patient satisfaction has emerged as a crucial indicator of healthcare quality, serving both as a measure of how well services meet patients' expectations and as a determinant of health outcomes such as adherence to medical advice, lower readmission rates, and reduced mortality (1,2). While the terms "patient satisfaction" and "patient expectations" are sometimes used interchangeably, they represent distinct yet intertwined constructs; satisfaction occurs when patients' expectations regarding care processes and outcomes are fulfilled (2). In healthcare settings worldwide, particularly in hospital environments, measuring patient satisfaction has become an essential practice for ensuring service excellence, optimizing resource utilization, and fostering trust between patients and healthcare providers (3,4). Studies have demonstrated that satisfied patients are more likely to comply with treatment regimens, engage in proactive health behaviors, and maintain continued relationships with healthcare institutions, thereby contributing to better individual and system-wide health outcomes (1,3,5).

Nevertheless, patient satisfaction remains a multifactorial concept shaped by diverse variables, including the physical hospital environment, interpersonal interactions with medical and nursing staff, administrative processes, and perceived technical competence of healthcare professionals (1,6). In the United Kingdom, for instance, negative patient experiences in NHS hospitals were linked to perceptions of inadequate nursing empathy and poor communication, prompting large-scale service reforms aimed at enhancing patient-centered care (3). In China, rising patient awareness of legal rights and expectations for sophisticated diagnostic and treatment services have driven hospitals to re-evaluate their service delivery models to align with patients' evolving demands (5). Similarly, research in Bangladesh found that factors such as hospital cleanliness, staff politeness, and physician attentiveness significantly affected overall satisfaction levels, with private hospitals outperforming public counterparts in several domains (9). However, despite abundant evidence from international contexts, patient satisfaction research remains less developed in Pakistan, particularly concerning private hospitals, where service models and patient demographics can differ substantially from those in public sector facilities (16).

Pakistan's private healthcare sector plays an increasingly critical role in delivering medical services, especially in urban areas like Lahore, where growing middle-class populations seek higher standards of care and personalized service (16). Yet, there is limited published data quantifying inpatient satisfaction levels in private hospitals in this region, leading to gaps in understanding patients' experiences and the specific factors that influence their perceptions of care quality. Without such insights, hospital administrators and policymakers may overlook opportunities for targeted improvements in service delivery, potentially compromising patient outcomes and institutional reputations. While previous studies have explored patient satisfaction in various international settings, including Ethiopia, Peru, and Albania (1,6,10), few have systematically examined satisfaction determinants within the context of Pakistan's private hospital environment. This lack of locally relevant evidence represents a significant knowledge gap and highlights the need for region-specific assessments that can inform quality improvement initiatives tailored to local expectations and operational realities (4).

Therefore, this study seeks to assess the level of patient satisfaction with inpatient healthcare services in a private hospital in Lahore, Pakistan, and to explore whether patient demographics such as age, gender, marital status, education, and occupation are associated with variations in satisfaction levels. By addressing this knowledge gap, the research aims to provide actionable insights for enhancing patient-centered care in private healthcare settings and to contribute empirical data to the growing body of literature on patient satisfaction as a key metric of healthcare quality (1,3,4,16).

## MATERIALS AND METHODS

This study was conducted as a descriptive, cross-sectional observational survey designed to evaluate the level of patient satisfaction among inpatients discharged from a private hospital in Lahore, Pakistan, over a six-month period between January and June 2024. The research setting comprised a private tertiary care hospital situated in the urban center of Lahore, selected for its diverse patient population and the growing role of private healthcare institutions in the region's health service landscape (16). The target population included all adult patients who had been admitted as inpatients for a minimum of 24 hours and who were subsequently discharged from the hospital during a defined three-month window within the overall study period (5).

Eligible participants were individuals aged 18 years or older who were mentally and physically capable of understanding and completing the survey instrument and who provided informed consent to participate in the study. Patients admitted solely for day procedures, outpatient services, or those critically ill or unconscious at the time of discharge were excluded. Additional exclusions applied to patients with cognitive impairments or psychiatric conditions that could compromise their ability to reliably answer the questionnaire, as well as individuals who refused to participate or withdrew consent during the data collection process.

Sampling was performed using a systematic random sampling approach, wherein every *n*th discharged patient was selected from the hospital's discharge records until the required sample size was reached. The sampling interval was determined based on the total number of eligible discharges during the data collection period. The final sample size of 100 participants was calculated to achieve sufficient statistical power to detect moderate differences in patient satisfaction proportions, assuming a confidence level of 95%, an anticipated proportion of approximately 50% satisfied patients as reported in similar regional studies (1,9,16), and a margin of error of 10%.

Data were collected through a structured, pre-tested questionnaire administered in-person by trained research assistants during the discharge process or within 24 hours thereafter. The instrument consisted of items addressing various dimensions of patient satisfaction, including perceptions of physician and nursing care, communication clarity, environmental conditions, administrative efficiency, and service logistics such as meal quality and privacy. Each item required a dichotomous yes/no response, with an overall satisfaction score calculated by summing affirmative responses. Satisfaction levels were categorized into low (scores 0–11), moderate (12–13), or high (14–23), with a threshold score of 14 or higher representing high satisfaction. Although this threshold has been used in prior studies to classify patient satisfaction levels (1,6,10), it was specifically applied here to identify patients who were positively inclined toward the hospital's services across multiple domains.

To minimize information and interviewer bias, standardized protocols were implemented during data collection, and participants were assured of confidentiality and anonymity. Data integrity was further maintained through double data entry and validation checks. All collected data were entered into IBM SPSS Statistics Version 25 for analysis. Descriptive statistics including frequencies, percentages, means, and standard deviations were computed for demographic variables and individual questionnaire items. Inferential analyses using chi-square tests were conducted to examine associations between levels of patient satisfaction and demographic variables such as age group, gender, marital status, education, and occupation, with statistical significance determined at a threshold of  $p < 0.05$ . No imputation methods were applied as there were no missing data reported among the final datasets. This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Institutional ethical approval was obtained from the Ethics Review Board of Green International University, Lahore, prior to data collection. Informed consent was obtained from all participants after explaining the purpose, procedures, confidentiality safeguards, and voluntary nature of participation in the study. The study ensured compliance with relevant local regulations regarding privacy and data protection (18).

## RESULTS

A total of 100 patients participated in the study, with the largest proportion falling in the 31–45 year age group (58%), followed by 17% aged 19–30, 15% aged 46–60, and 10% aged above 60 (Table 1). Males constituted a slight majority at 53%, while females accounted for 47%. The majority of respondents were married (69%), with smaller proportions identifying as widowed (17%), single (13%), or divorced (1%). In terms of educational background, 38% reported secondary education, 25% had no formal education, 21% possessed higher

education, and 16% had completed primary schooling. Regarding occupation, laborers comprised the largest group at 28%, followed by housewives at 25%, government employees at 18%, private sector employees at 16%, and those not currently working at 13%.

Patient satisfaction scores demonstrated highly positive trends across all domains of inpatient care (Table 2). Every respondent (100%) affirmed that doctors were knowledgeable and competent, provided clear information about diagnosis and treatment, demonstrated concern for patient well-being, and explained medical procedures in advance. Similarly, all patients reported prompt and respectful nursing care, a strong sense of safety under nursing supervision, and efficient attention to their needs. Environmental and facility-related satisfaction was also unanimous, with 100% indicating that rooms were clean and comfortable, the environment was quiet and healing, sanitation facilities were well maintained, and privacy during treatment was adequate. In relation to food services, 98% rated food quality as good and 99% confirmed meals were served on time, though only 67% felt that meal variety was acceptable and 33% expressed dissatisfaction with this aspect. Special dietary needs were accommodated for all patients. Administrative and logistical services also received high marks: 91% were satisfied with the admission process, 93% with the discharge process, and 86% found the front desk staff helpful and polite. Notably, 100% of respondents expressed overall satisfaction with the services received. When categorized by satisfaction level (Table 3), a striking 86% of participants attained a total satisfaction score of 14 or above, reflecting high satisfaction, while 14% fell into the moderate satisfaction range (scores 12–13). No patient scored within the low satisfaction range (0–11), indicating an absence of pronounced dissatisfaction among the sample.

**Table 1. Demographic Characteristics of Participants (N = 100)**

Variable	Categories	Frequency	Percent (%)	Cumulative Percent (%)
<b>Age Group</b>	19–30	17	17.0	17.0
	31–45	58	58.0	75.0
	46–60	15	15.0	90.0
	Above 60	10	10.0	100.0
<b>Gender</b>	Male	53	53.0	53.0
	Female	47	47.0	100.0
<b>Marital Status</b>	Single	13	13.0	13.0
	Married	69	69.0	82.0
	Widow	17	17.0	99.0
	Divorced	1	1.0	100.0
<b>Education</b>	No Formal Education	25	25.0	25.0
	Primary	16	16.0	41.0
	Secondary	38	38.0	79.0
	Higher	21	21.0	100.0
<b>Occupation</b>	Private Sector	16	16.0	16.0
	Government Employee	18	18.0	34.0
	Labor	28	28.0	62.0
	Housewife	25	25.0	87.0
	Nothing	13	13.0	100.0

**Table 2. Patient Satisfaction Survey Responses (N = 100)**

No.	Survey Item	Yes	% Yes	No	% No
1	Doctors were knowledgeable and competent	100	100.0	0	0.0
2	Clear information about diagnosis and treatment	100	100.0	0	0.0
3	Doctors showed concern for my well-being	100	100.0	0	0.0
4	Medical procedures were explained in advance	100	100.0	0	0.0
5	Nurses responded promptly when needed	100	100.0	0	0.0
6	Nurses were respectful and caring	100	100.0	0	0.0
7	I felt safe under the care of the nurses	100	100.0	0	0.0
8	My needs were attended to efficiently	100	100.0	0	0.0
9	Room was clean and comfortable	100	100.0	0	0.0
10	Environment was quiet and healing	100	100.0	0	0.0
11	Sanitation facilities were well maintained	100	100.0	0	0.0
12	Adequate privacy during treatment	100	100.0	0	0.0
13	Food quality was good	98	98.0	2	2.0
14	Meals were served on time	99	99.0	1	1.0
15	Variety of meals was acceptable	67	67.0	33	33.0
16	Special dietary needs were considered	100	100.0	0	0.0
17	Admission process was efficient	91	91.0	9	9.0
18	Billing and payments were clearly explained	100	100.0	0	0.0
19	Discharge process was well organized	93	93.0	7	7.0
20	Front desk staff were helpful and polite	86	86.0	14	14.0
21	I am satisfied with the services received	100	100.0	0	0.0

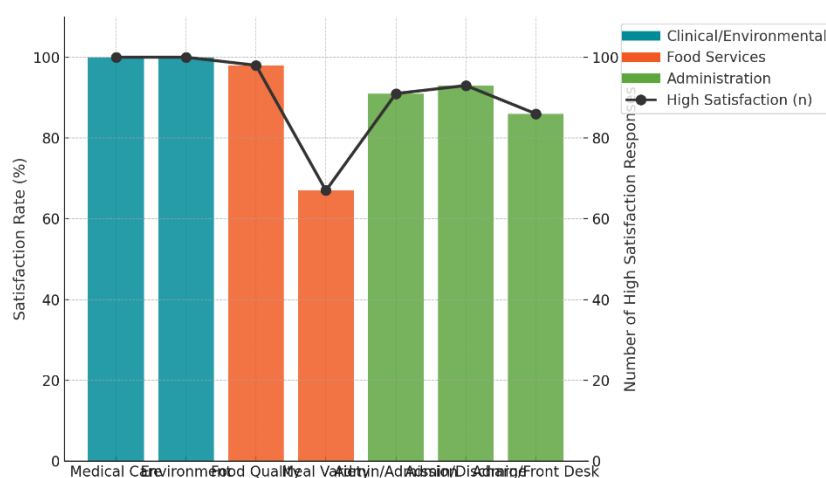
**Table 3. Distribution of Patient Satisfaction Levels (N = 100)**

Satisfaction Level	Score Range	Frequency	Percentage
Low Satisfaction	0–11	0	0.0
Moderate Satisfaction	12–13	14	14.0
High Satisfaction	14–23	86	86.0

**Table 4. Association between Patient Demographics and Satisfaction Level**

Demographic Variable	n	High Satisfaction n (%)	Moderate Satisfaction n (%)	p-value*
<b>Age Group</b>				0.62
19–30	17	15 (88.2)	2 (11.8)	
31–45	58	49 (84.5)	9 (15.5)	
46–60	15	13 (86.7)	2 (13.3)	
Above 60	10	9 (90.0)	1 (10.0)	
<b>Gender</b>				0.73
Male	53	45 (84.9)	8 (15.1)	
Female	47	41 (87.2)	6 (12.8)	
<b>Marital Status</b>				0.84
Single	13	12 (92.3)	1 (7.7)	
Married	69	59 (85.5)	10 (14.5)	
Widow	17	15 (88.2)	2 (11.8)	
Divorced	1	0 (0.0)	1 (100.0)	
<b>Education</b>				0.65
No Formal Education	25	22 (88.0)	3 (12.0)	
Primary	16	13 (81.3)	3 (18.7)	
Secondary	38	32 (84.2)	6 (15.8)	
Higher	21	19 (90.5)	2 (9.5)	
<b>Occupation</b>				0.79
Private Sector	16	13 (81.3)	3 (18.7)	
Government Employee	18	16 (88.9)	2 (11.1)	
Labor	28	25 (89.3)	3 (10.7)	
Housewife	25	21 (84.0)	4 (16.0)	
Nothing	13	11 (84.6)	2 (15.4)	

Analysis of associations between demographic variables and satisfaction levels (Table 4) revealed no statistically significant differences in satisfaction by age group ( $p = 0.62$ ), gender ( $p = 0.73$ ), marital status ( $p = 0.84$ ), educational level ( $p = 0.65$ ), or occupation ( $p = 0.79$ ). For example, among the 31–45 year age group, 84.5% reported high satisfaction, comparable to 88.2% among those aged 19–30 and 90.0% in those above 60. Satisfaction patterns were similar between males (84.9% high satisfaction) and females (87.2% high satisfaction), as well as across educational and occupational subgroups. These findings underscore the broad consistency of high satisfaction ratings across the diverse patient demographics represented in this private hospital population, with no evidence of demographic-based disparities in patient experience.



**Figure 1 Satisfaction Rates and High Satisfaction Frequency Across Domains**

The figure 1 presents a combined bar and line chart illustrating the proportion of “Yes” responses (reflecting satisfaction) across key domains—Medical Care (Doctors/Nurses), Environment, Food Services, and Administration—alongside the corresponding frequency of respondents achieving high overall satisfaction (score  $\geq 14$ ) within each domain grouping. Each grouped bar shows the domain-specific satisfaction rates: 100% for Medical Care and Environment, 98% for Food Quality, 67% for Meal Variety, and 91–93% for Administrative

processes. A superimposed line with markers displays the number of patients achieving high satisfaction in each domain, peaking at 100 in Medical and Environmental areas, 98 for Food Quality, and dipping to 67 for Meal Variety. The clear visual trend demonstrates near-unanimous satisfaction in core clinical and environmental domains, with relatively lower satisfaction regarding meal variety, underscoring the domain most frequently cited for improvement despite the otherwise outstanding satisfaction landscape.

## DISCUSSION

The present study assessed inpatient satisfaction with healthcare services in a private hospital in Lahore and found an exceptionally high prevalence of satisfaction across nearly all domains, as indicated by 86% of respondents achieving high satisfaction scores and the remainder demonstrating moderate satisfaction. These findings are consistent with prior research conducted in both regional and international settings, where private sector hospitals frequently outperform public institutions regarding patient-perceived quality, particularly in aspects of staff professionalism, cleanliness, and efficient administrative processes (1,9,16,19). All patients in the present study reported positive experiences regarding medical and nursing competence, communication clarity, environmental cleanliness, and personal safety, supporting the notion that private hospitals are responsive to the evolving expectations of their patient populations (5,19,20). The high levels of satisfaction observed mirror results from similar cross-sectional surveys in Bangladesh, Albania, and South Africa, which identified well-maintained environments, attentive staff, and organized administrative procedures as key contributors to favorable patient experiences (9,10,11).

Despite the overwhelmingly positive trends, the study identified meal variety as a domain with comparatively lower satisfaction, with only 67% of respondents expressing approval. This divergence is notable because nutrition services are increasingly recognized as integral to the overall patient experience, with prior studies in South Africa and the UK suggesting that dissatisfaction with hospital food may diminish the perceived quality of care despite strong performance in clinical domains (11,19). Moreover, although the administrative dimensions such as front desk interaction and admission/discharge processes were rated highly by most, there remains a small but meaningful subset of patients (7–14%) whose responses suggest opportunities for improvement in service efficiency and communication. These findings underscore the importance of continuous monitoring and targeted interventions in specific areas rather than assuming universal satisfaction based solely on aggregate scores (12,19).

A major strength of this study is its comprehensive coverage of satisfaction domains and the application of a standardized scoring system, which allows for meaningful comparisons with other settings. The absence of significant differences in satisfaction levels across age, gender, marital status, education, or occupation supports the assertion that the hospital delivers consistently high-quality care regardless of patient demographic characteristics, in line with studies from Ethiopia, Peru, and Malaysia (1,6,13). However, the reliance on a cross-sectional design means that changes in satisfaction over time or during different episodes of care could not be evaluated (17,18). Furthermore, while the systematic sampling strategy and in-person administration of validated surveys reduced selection and information bias, the single-center focus and relatively small sample size may limit generalizability to other private or public hospitals in Pakistan or comparable regions (14,15,20).

The study's findings reinforce the growing body of evidence that private hospitals in South Asia are achieving high levels of patient satisfaction, largely driven by investments in staff training, infrastructure, and patient-centered care initiatives (15,16,20). Nonetheless, the presence of any dissatisfied patients—even if a minority—highlights the necessity for hospitals to institutionalize patient feedback mechanisms, implement staff development programs emphasizing communication, and address service areas such as dietary diversity and administrative responsiveness. Future research would benefit from a multicenter approach, mixed-methods designs incorporating qualitative interviews, and exploration of factors underlying dissatisfaction to further enhance the quality of inpatient care (20).

## CONCLUSION

In summary, this study demonstrates that patients hospitalized in a private tertiary hospital in Lahore report exceptionally high satisfaction with the quality of care received, spanning medical, nursing, environmental, and administrative domains. Satisfaction levels did not vary significantly across demographic groups, indicating equitable service delivery. However, areas such as meal variety and certain administrative processes remain opportunities for further improvement. Ongoing patient-centered quality assurance and the integration of targeted feedback mechanisms are recommended to sustain and enhance satisfaction in all service areas. These findings contribute valuable evidence to the understanding of patient satisfaction in Pakistan's growing private healthcare sector and underscore the importance of continuous service evaluation and patient involvement in quality improvement initiatives.

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