

Comparison of Patients Satisfaction in Public and Private Teaching Hospitals of Islamabad

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Abstract

Background: Patient satisfaction is recognized as an important indicator of quality for health services provided by hospitals.

Objectives: To assess and compare patients' satisfaction with services provided in public and private sector hospitals and to determine the factors associated with patients' satisfaction in these hospitals.

Study design, settings and duration: A cross sectional comparative study done in public and private teaching hospitals of Islamabad from September 2014 to July 2015.

Patients and Methods: Patients visiting public and private teaching hospitals of Islamabad were randomly interviewed to assess their satisfaction using SERVQUAL instrument. Z-test was used for significance and Spearman test was used to see the association between patients' satisfaction and age, level of education, number of admissions, waiting time for doctor after admission and number of days at hospital while chi-square test was used to see the significant association between patients' satisfaction and type of admission, marital status and gender.

Results: A total of 240 patients were entered in the study. Overall patients' satisfaction scores in private sector were higher than public sector hospitals ($p < 0.001$). Patients' satisfaction scores within public and private hospitals showed no significant difference. Overall married persons were more satisfied ($p < 0.001$). There was a weaker correlation between satisfaction and number of time the patient was admitted, level of education, number of admissions, number of days at hospital; but no significant association was seen with age, gender and type of admission. No correlation was found between satisfaction and waiting time for doctor after admission.

Conclusion: Overall Patients' satisfaction in private sector hospitals was higher than in public sector hospitals because the quality of care is higher in private sector hospitals. However, patients of private sector hospital are less satisfied than those of public sector on the indicator of accessibility and affordability.

Key words: Public hospitals, private hospitals, patients' satisfaction.

Introduction

Pakistan faces many challenges in the delivery of quality healthcare services equitably to the people of the country. The system consists of 70% contribution by the private sector health and 30% by public sector.¹ Public hospitals also called as government hospitals are mostly used by low socioeconomic group due to their low out of pocket cost, while affluent and other people who

belong to corporate sector or have health insurances access private hospitals.² Both public and private health sector is mostly delivering curative and tertiary care health services. Many patients are dissatisfied with the quality of services being offered in government hospitals.¹

In most developing countries, healthcare services provided by the public hospitals are not satisfactory.³ It is widely believed that public sector hospitals are poor service providers, mismanaged and politicized units therefore, there is lack of public trust and confidence in these hospitals. These are coupled by insufficient infrastructure and facilities, lack of responsiveness, low reliability and absence of empathy, obsolescent equipment and minimal medicines availability.⁴ Despite these shortcomings, there is overcrowding in these hospitals resulting in sharp decline in the quality of services. Public hospitals in Pakistan also lack basic facilities, medicines, staff, doctors, infrastructure, modern technology and have low funds to run the unit.⁵

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Received: 23 November 2016, **Accepted:** 11 September 2017,

Published: 29 September 2017

Authors Contribution

AJ has done the conceptualization of project, data collection, literature search and statistical analysis. Drafting, revision and writing of the manuscript were done by AJ and MI.

In competing healthcare organizations, service quality and patients' satisfaction is getting considerable attentions and is given priority in their strategic planning process.³ Health care providers are now identifying the key determinants to improve healthcare services and reduce time and money involved in handling patient's complaints,⁶ because the quality of services provided by health delivery system is a key determinant of patients' satisfaction.⁷ A waiting time of not more than 30 minutes and consultation time of not less than 20 minutes in the hospital outpatient and emergency department are patient's common expectations which are affected by age, gender, marital status and psychosocial determinants.⁷

Patients' satisfaction is a multi-dimensional concept involving many features of healthcare. A review of dental patient's satisfaction revealed five factors that influenced patient's satisfaction; these were 1) technical competence, 2) interpersonal factors, 3) convenience, 4) costs and 5) facilities.⁸ Trying to know the patients' a little more and understanding their needs, can make patients come closer to what they consider as a good care.⁹ There is a direct impact of service quality dimensions like responsiveness, assurance, discipline and communication on patients' satisfaction.¹⁰

Patient satisfaction studies done in Pakistan have shown low patient satisfaction in government healthcare facilities and increasing utilization of private healthcare facilities across all income quintiles (lower to higher socioeconomic status).¹¹

This study was done to assess and compare patients' satisfaction with services provided in public sector and private sector hospitals and determine the factors contributing to patients' satisfaction with the services provided by hospitals.

Patients and Methods

This cross-sectional study was done from September 2014 to July 2015 on patients admitted in medical, surgical, gynecology, CCU, private, semi private wards of public and private teaching hospitals of Islamabad. The main objective of the study was to compare patients' satisfaction in public and private teaching hospitals of Islamabad. A sample size of 240 patients was calculated using WHO sample size calculator with α 5%, power of study 80%, P1 is the anticipated proportion of patients' satisfaction in private sector hospitals and P2 in public sector hospitals (40% and 25% respectively). This sample has the statistical power to pick a 15% real difference in patients' satisfaction. In the sample 10% refusals were also considered.

Patients who were conscious and well oriented and were admitted in the above-mentioned departments, had more than 24 hours stay in hospital and were more than 18 years of age were included in this study. Patients admitted in ICU and those with psychiatric illness or those

who were unable to communicate because of their illness were excluded from study.

List of all teaching hospitals of Islamabad was obtained from Pakistan Medical and Dental Council's website. Two public and two private hospitals were selected by simple random sampling technique using lottery method. In the second step, admitted patients who were fulfilling the inclusion criteria were selected using lottery method. List of patients were obtained from each ward. Out of 240 patients, 120 each were selected from private and public hospital. Finally, 20 patients were selected from each selected unit through simple random sampling.

A pre-designed patient satisfaction questionnaire based on SERVQUAL (service quality by Parasuraman 1988) instrument was used to collect data.¹² The tool was pretested on 15 patients among the population and established a value of cronbach alpha 0.8. This tool consisted of four parts; part A consists of socio-demographic characteristics of patients, part B comprised of five questions related to type of hospitalization, part C, consisted one question related to available services related to care provider and part D included 20 items related to six dimensions of quality services of a hospital. The measurement scale was Likert-type, highly satisfied=3, satisfied=2, uncertain=1, dissatisfied=0. Predicted factors included: number of time patient was admitted in the hospital and number of days at the hospital was measured as discrete variable; Waiting time for doctor after admission and age were measured as continuous variable; Level of education was measured as an ordinal variable; type of admission, gender and marital status were measured as nominal.

Data was collected through interviewer-administered questionnaire by visiting each patient individually. Researcher trained two data collectors who were not employees of the selected hospitals. Data were checked for any omission on the spot by the data collectors and rectified. The principle investigator checked the data collection process randomly to ensure quality of data collection.

Questionnaire was coded before data entry in Statistical Package for the Social Sciences (version 17). The sample database was checked by double entry. The data was analyzed using descriptive and inferential statistics and results presented in terms of frequency and percentages in tabulated and in graphical form. Satisfaction score was measured towards services within private and public sector hospitals. Further, satisfaction scores were compared in the two categories of hospitals. Z-test calculator was used to test the significance difference between satisfaction score in public and private sector hospitals.¹³ To see association of factors with patients' satisfaction, Spearman correlation and chi square test were used.

This study was approved by the Ethics Committee of Khyber Medical University. Written

Table 1: Frequency (%) of satisfied responses and dissatisfied responses with tangibility, reliability, responsiveness, assurance, empathy and accessibility & affordability indicators in public and private sector hospitals.

Variable	Private sector hospital n=120			Public sector hospital n=120			Z-score value	p-value
	Total*	Satisfied** (%)	Dissatisfied (%)	Total*	Satisfied** (%)	Dissatisfied (%)		
<i>Tangibility</i>								
Up dated and well-maintained medical facilities	118	117 (99.1%)	1 (0.9%)	95	52 (54.7%)	43 (45.3%)	7.959	0
Clean and comfortable environment with good directional signs	120	118 (98.3%)	2 (1.7%)	102	84 (82.3%)	18 (17.7%)	4.144	0
Doctors /staff are neat in appearance	116	114 (98.2%)	2 (1.8%)	101	82 (81.1%)	19 (18.9%)	4.246	0
Informative Services brochures are available	100	86 (86%)	14 (14%)	101	49 (48.5%)	52 (51.5%)	5.658	0
Privacy is observed during treatment.	120	118 (98.3%)	2 (1.7%)	87	79 (90.8%)	8 (9.2%)	2.493	0.006
<i>Reliability</i>								
Services are provided at appointed time	106	104 (98.1%)	2 (1.9%)	96	70 (72.5%)	26 (27.5%)	5.175	0
Services are carried out right the first time	103	99 (96.2%)	4 (3.8%)	103	23 (22.3%)	80 (77.7%)	10.775	0
Professional and competent Doctors/staff	116	114 (98.3%)	2 (1.7%)	106	25 (23.7%)	81 (76.3%)	11.488	0
<i>Responsiveness</i>								
Patients are given prompt services	114	113 (99.2%)	1 (0.8%)	112	86 (76.8%)	26 (23.2%)	5.176	0
Doctors/staff are responsive	108	106 (98.1%)	2 (1.9%)	116	92 (79.4%)	24 (20.6%)	4.398	0
Attitude of doctors/staff instill confidence in patients	103	101 (98.1%)	2 (1.9%)	108	71 (65.6%)	37 (34.2%)	6.045	0
<i>Assurance</i>								
Doctors/staff are courteous and friendly	110	109 (98.9%)	1(1.1%)	107	79(74%)	28 (26%)	5.467	0
Doctors possess wide spectrum of knowledge	114	112 (98.3%)	2 (1.7%)	114	94 (82.5%)	20 (17.5%)	4.037	0
Treated with dignity and respect.	118	116 (98.4%)	2 (1.6%)	116	91 (78.3%)	25 (21.7%)	4.753	0
Explained medical condition thoroughly	113	110 (97.4%)	3 (2.6%)	112	72 (64.3%)	40 (35.7%)	6.306	0
<i>Empathy</i>								
Feedback is obtained from patients	110	100 (91%)	10 (9.0%)	108	52 (47.8%)	56 (52.2%)	8.705	0
Doctors/staff understand the specific needs of patients	108	95 (87.8%)	13 (12.2%)	108	72 (66.7%)	36 (33.3%)	3.736	0

Accessibility & Affordability								
Hospital has adequate parking facilities	112	81 (72.4%)	31 (27.6%)	110	84 (76%)	26 (24%)	-0.689	0.249
The location is accessible	116	88 (76%)	28 (24%)	112	92 (82%)	20 (18%)	-1.163	0.123
Services charges are affordable	105	41 (39.1%)	64 (60.9%)	114	84 (73.7%)	30 (26.3%)	-5.173	0

Foot Note: *all possible responses minus uncertain responses, **Included highly satisfied

informed consent was taken from the participants before data collection. Study purpose was explained to participants. Participants were given the right to withdraw at any stage of study. The voluntary participation, autonomy and confidentiality were ensured.

Results

The mean age of participants from public sector hospitals was 38.09 (± 1.52) and in private sector was 41.65 (± 1.62). The proportion of married patients was 30% higher in private sector as compared to the public-sector hospitals.

Illiteracy among the patients admitted in public sector hospitals (43.4%) was ten times more than in private sector (4.2%). Figures-1 & 2 are presenting detail of demographic variables in these patients.

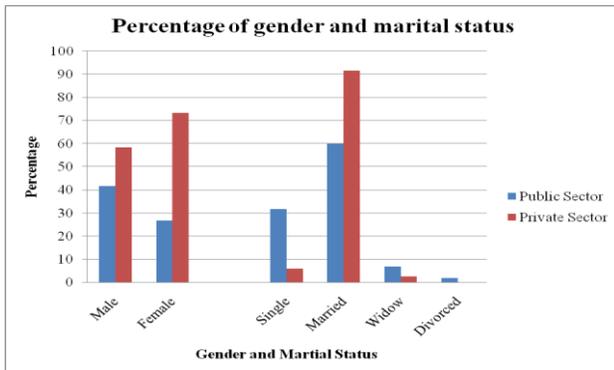


Figure 1: Percentage of demographic characteristics of participants.

Patients' satisfaction and dissatisfaction scores with different dimensions of services showed that; satisfaction responses score and percentages are equal to dissatisfaction scores and percentages with tangibility, reliability, responsiveness, assurance, empathy and accessibility & affordability indicators in both public and private sector hospitals. Sub category of each indicator except accessibility & affordability depicted satisfaction score of private hospital participants were significantly higher as compared to public sector hospitals (Table-1).

To compare overall patients' satisfaction with services provided in public and private sector hospitals, total responses (all possible responses minus uncertain responses) on all dimensions of satisfaction were added in

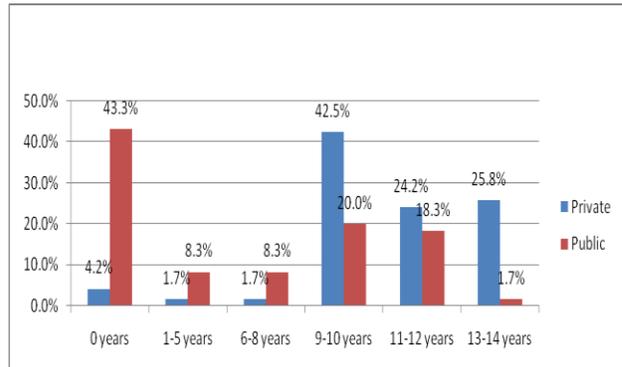


Figure 2: Percentage distribution of level of education in public and private sectors' hospital.

both sectors of hospitals separately. Similarly, satisfaction score i.e. percentages satisfied (included highly satisfied) responses were also added up in both sector hospitals separately. Satisfaction score in private sector hospital was 92% and in public sector was 67.3% ($p < 0.001$).

To compare satisfied and dissatisfied responses in each dimension of services between the wards, firstly, the frequencies of dissatisfied and uncertain responses were merged with dissatisfied, while frequencies of satisfied and highly satisfied responses were merged with satisfied. Later, these frequencies of satisfied and dissatisfied responses in each dimension were compared between the six types of wards (general medical ward, general surgical ward, semi private, private, CCU and Gynecology ward) as shown in Table-2. High percentage of dissatisfactions was found in general medical wards followed by private ward and gynecology ward, to all dimensions of quality.

Factors affecting patients' satisfaction were classified into; hospital related factors and patient related factors. Association between each hospital related factor and patients' overall satisfaction was tested by using Spearman's rank-order correlation. There was a weaker positive correlation between number of time the patient was admitted in hospital and number of days at the hospital but weaker negative correlation between waiting time for doctor after admission and overall patients' satisfaction (Table-3). The Association of overall satisfaction with type of admission was analyzed using chi-Square test. There was no significant association between type of admission and overall patients' satisfaction.

Table 2: Frequency of patient’s satisfaction with different dimensions of quality in different wards.

Dimension of Quality		Type of Ward							Total
		Gen. Med. Ward	Gen. Surg. Ward	Semi Priv. Room	Priv. Room	CCU	Gyne. Ward		
Tangibility	Dissatisfied	25	10	4	14	14	21	88	
	Satisfied	22	37	44	12	19	18	152	
Reliability	Dissatisfied	27	19	18	16	13	17	110	
	Satisfied	20	28	30	10	20	22	130	
Responsiveness	Dissatisfied	28	33	27	16	20	22	146	
	Satisfied	19	14	21	10	13	17	94	
Assurance	Dissatisfied	22	14	7	17	17	22	99	
	Satisfied	25	33	41	9	16	17	141	
Empathy	Dissatisfied	32	42	38	16	25	24	177	
	Satisfied	15	5	10	10	8	15	63	
Accessibility	Dissatisfied	25	8	8	16	13	16	86	
	Satisfied	22	39	40	10	20	23	154	

Table 3: Association factors with overall satisfaction score in both public and private hospital participants.

S #	Type of Factors	Spearman's rank-order correlation coefficient	p-value
1	Hospital –related Factors:		
1.1	Number of time patient was admitted in the hospital	0.127	0.024
1.2	Waiting time for doctor after admission	-0.148	0.011
1.3	Number of days at the hospital	0.242	0.000
2	Patient Related Factors		
2.1	Age	0.059	0.181
2.2	Level of education	0.270	0.000

Association between patients’ related factors like age, gender, level of education and marital status were tested with overall satisfaction. These showed no association between overall patients’ satisfaction and age but showed slight increase in patients’ overall satisfaction median with increased education.

Association of gender and marital status were measured using chi-square test and are given in Table-3. It showed no significant association with gender while marital status showed association with overall patients’ satisfaction (p< 0.001)

Discussion

This study showed higher patients’ satisfaction in private sector hospital as compared to public sector hospitals in Pakistan. A study from Peshawar-Pakistan also reported overall higher patients’ satisfaction in private sector hospitals than public sector hospitals in Peshawar.¹⁴ In the present study private sector hospitals received higher satisfaction scores on all indicators of quality of care except for accessibility and affordability where public sector hospitals scored higher satisfaction.

There were higher proportion of married in both types of hospitals in the present study because our inclusion age was 18 years and above thus making marital status as biased observation.

Significant differences in patients’ satisfaction in the tangibility dimension were seen between private sector and public sector hospitals in the present study and such observations were also reported in other studies from Pakistan, Northern Cyprus and Bangladesh; where satisfaction scores were better in private hospitals as compared to public hospitals.^{6,15,16} This might be because private sector hospitals have updated facilities, maintain hygiene and provide informative brochures about different services.

On the reliability dimension, private sector provided services through appointments while in public sector hospitals patients had to wait in long queues. Similar finding was reported by another Pakistani study.⁶ The major reason for this could be higher patient-staff/doctor’s ratio and lesser work load in private hospitals.

The findings on responsiveness are similar to those reported by Bangladesh where staff and doctors of private sector hospitals responded more quickly than those of public sector hospitals.¹⁶ Moreover doctors/staff of private sector hospitals scored higher on courtesy and possession of a wide spectrum of knowledge than those of public sector hospitals. Similar findings were reported by other worker.¹⁷

On the empathy dimension, again private sector hospitals scored higher in the present study and similar findings were observed in the Bangladesh.¹⁶

In the present study, accessibility and affordability were the only dimensions which scored satisfaction scores in public sector hospitals as compared to private sector hospitals. This was also reported in a study from Bahawalpur where public hospitals were found to be cheaper than private hospitals though private hospitals are providing more facilities and better treatment.¹⁸

The study did not find any significant association of age and gender with satisfaction and same was reported by other workers.^{19,20} Marital Status showed significant association with overall satisfaction and this finding is similar to that reported by Mosul.²¹

Weak association of patients’ satisfaction was found with the ‘number of time the patient was admitted in the hospital. A study from Norway found a more significant association with number of admissions.²² One

reason for this observation could be that patients develop familiarity with the staff and the hospital environment and feel more comfortable. This argument is also supported by Mosul, which states that patients become more familiar with healthcare delivery and overtime their expectations decrease leading to increase in satisfaction level.²¹

There was a weaker negative associations of patients' satisfaction with 'waiting time for doctor after admission' in this study while the study from Karachi showed modest negative association.⁷ Again weak association of patients' satisfaction was found with 'number of days in hospital while Mosul reported that the level of satisfaction is significantly related to history and duration of hospitalization and increases in both.²¹ In contrast to this a study from Canada reported that longer hospital stay was associated with lower satisfaction.²³

This study has few limitations like; the research was conducted in the two public and two private teaching hospitals of Islamabad so its results cannot be generalize. Further studies are recommended to determine satisfaction in terms of diagnostics and other components of hospitals.

Acknowledgement

Special thanks to Dr. Tasleem Akhter for supervision and intellectual review and Mr Nadeem Infection control officer for assisting in data collection.

Conflict of interest: None declared.

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