

## Comparison of patient's satisfaction levels in public and private tertiary care centres

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### Abstract

The purpose of our study was to compare patient satisfaction level among tertiary public and private hospitals. We carried out a multi-centre cross-sectional study using Patient Satisfaction Questionnaire-18 to assess patient satisfaction in a major private and public hospital in Islamabad. Out of 1301 participants, 636 (48.9%) patients were at the public hospital, while 665 (51.1%) were at the private hospital. Time spent with doctor, communication, accessibility and convenience component score was significantly higher in patients at the private hospital ( $p < 0.05$  each). Interpersonal manner component score was higher at the public hospital ( $p < 0.05$ ). Female patients, patients admitted in medical specialty and patients admitted in private hospitals had higher patient satisfaction score ( $p < 0.05$  each). Significant efforts should be made to improve the quality of care provided to patients admitted in public-sector health facilities.

**Keywords:** Medicine, Patient satisfaction, Private hospital, Quality of care, Surgery.

### Introduction

Patient satisfaction is defined as the extent to which patients are content with the healthcare provided to them by their healthcare providers. Over the passage of time, the focus has been shifted to patient satisfaction as it has been associated with better quality of life, reduced drug dosage and improved health outcomes.<sup>1,2</sup> Patients who are satisfied with their physicians are most likely to have greater treatment compliance compared to the unsatisfied patient. Considering the fact that public and private hospitals have kept rather different goals in mind when catering to the need of their patients, we hypothesised that the level of patient satisfaction would be different between the two sectors of healthcare. The current study was planned to compare patient

satisfaction level in public and private hospitals.

### Methods and Results

This cross-sectional study was conducted at Pakistan Institute of Medical Sciences (PIMS) and Shifa International Hospital (SIH), Islamabad, Pakistan, from February to July 2016. We used the Patient Satisfaction Questionnaire-18 (PSQ-18) to assess domains like general satisfaction, technical quality, interpersonal manner, financial aspects, time spent with doctor, communication, accessibility and convenience. Multi-stage sampling was used to collect data from the patients. Patients older than 18 years and admitted to medical and surgical allied departments were included. The sample size was calculated by using World Health Organisation's (WHO) sample size calculator, keeping 13% as prevalence of stress in patients, confidence interval at 95% and absolute precision required at 2%.<sup>3</sup> Informed consent was obtained from all the participants. Ethical approval of the study was taken from the respective institutions. Data was analysed using SPSS 22.

Of the 1,301 participants, 636 (48.9%) were at PIMS while 665 (51.1%) were at SIH. The mean age of the patients was  $45.72 \pm 15.394$  years. Besides, 582 (44.7%) patients were admitted to medical and allied ward while 719 (55.3%) were admitted to surgery and allied ward. Moreover, 1,059 (81.4%) participants were married. Also, 641 (49.3%) participants were females while 660 (50.7%) were males. The mean score for general satisfaction was  $3.50 \pm 0.968$ , technical quality  $3.80 \pm 0.763$  and financial aspects

**Table-1:** Domain scores.

Domain Score	Mean $\pm$ SD
General Satisfaction	3.50 $\pm$ 0.968
Technical Quality	3.80 $\pm$ 0.763
Interpersonal Manner	4.04 $\pm$ 0.821
Financial Aspects	2.90 $\pm$ 1.225
Time spent with doctor	3.17 $\pm$ 1.066
Accessibility and convenience	3.41 $\pm$ 0.794
Communication	3.66 $\pm$ 0.829

SD: Standard deviation

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**Table-2:** Association of type of specialty with Domain Scores.

Category	Department	Mean±SD	t	p-value
General Satisfaction	Medicine and allied	3.59±1.056	2.972	0.003
	Surgery and allied	3.43±0.885		
Technical Quality	Medicine and allied	3.79±0.838	-0.509	0.611
	Surgery and allied	3.81±0.696		
Interpersonal Manner	Medicine and allied	4.19±0.845	5.995	<0.001
	Surgery and allied	3.92±0.780		
Financial aspects	Medicine and allied	2.93±1.295	0.745	0.456
	Surgery and allied	2.88±1.166		
Time spent with doctor	Medicine and allied	3.40±1.056	6.893	<0.001
	Surgery and allied	2.99±1.040		
Accessibility and Convenience	Medicine and allied	3.46±0.896	2.156	0.031
	Surgery and allied	3.37±0.698		
Communication	Medicine and allied	3.58±0.914	-2.962	0.003
	Surgery and allied	3.72±0.749		

SD: Standard deviation

**Table-3:** Association of Gender with Domain Scores.

Domain Score	Gender	Mean±SD	t-value	p-value
General satisfaction	Male	3.46±1.019	-1.547	0.122
	Female	3.54±0.911		
Technical Quality	Male	3.68±0.818	-5.436	<0.001
	Female	3.91±0.682		
Interpersonal Manner	Male	4.02±0.833	-719	0.472
	Female	4.06±0.808		
Financial aspects	Male	2.86±1.202	-1.100	0.272
	Female	2.94±1.248		
Time spent with doctor	Male	3.02±1.045	-5.185	<0.001
	Female	3.33±1.065		
Accessibility and Convenience	Male	3.33±0.809	-3.660	<0.000
	Female	3.49±0.770		
Communication	Male	3.58±0.886	-2.238	0.001
	Female	3.73±0.760		

SD: Standard deviation

2.90±1.225 (Table-1).

Independent sample t-test was applied to see for any significant difference in the satisfaction score in patients admitted into medicine allied and surgery allied wards. General satisfaction, interpersonal manner, time spent with doctor, accessibility and convenience component score was significantly higher in patients admitted under the services of medicine and allied departments as compared to patients admitted under the services of surgery and allied department ( $p<0.05$ ). Communication component score was significantly higher in patients admitted under the services of surgical department as compared to patients admitted under the services of medical department ( $p<0.05$ ) (Table-2).

In terms of gender, technical quality, time spent with doctor, communication, accessibility and convenience component score was significantly higher in female patients compared to male patients ( $p<0.05$ ) (Table-3).

General satisfaction, technical quality, time spent with doctor, communication, accessibility and convenience component score was significant higher in patients admitted to the private hospital ( $p<0.05$ ). Interpersonal manner component score was higher in patients admitted to the public hospital ( $p<0.05$ ) (Table-4).

Pearson's correlation test was applied to see for any significant difference between age and patients' satisfaction domain. No significant association was found ( $p>0.05$ ).

**Table-4:** Association of Type of Hospital with Domain Score.

Domain Score	Type of Hospital	Mean±SD	t	p-value
General satisfaction	Public	3.32±1.00	(-)6.518	<0.001
	Private	3.67±0.907		
Technical Quality	Public	3.72±0.755	(-)3.731	<0.001
	Private	3.87±0.762		
Interpersonal Manner	Public	4.10±0.789	2.63100	0.009
	Private	3.98±0.846		
Financial aspects	Public	2.89±1.224	(-)0.168	0.867
	Private	2.90±1.227		
Time spent with doctor	Public	2.97±1.125	(-)6.966	<0.001
	Private	3.37±0.966		
Accessibility and Convenience	Public	3.29±0.841	(-)5.205	<0.001
	Private	3.52±0.730		
Communication	Public	3.57±0.927	(-)3.897	<0.001
	Private	3.74±0.714		

**Table-5:** Comparison of domain scores between different specialties.

Domain Score	Our Study (Surgery and allied)	Our Study (Medicine and allied)	Chander V et al <sup>15</sup> 2011 (Medicine and allied)	Vahab SA et al <sup>16</sup> 2016 (Medicine and allied)	Odatuwa-ODO et al <sup>17</sup> 2014 (Surgery and allied)
General satisfaction	3.43±0.89	3.59±1.06	3.22±0.86	4.43±0.48	3.37±1.12
Technical Quality	3.81±0.70	3.79±0.84	3.03±0.92	4.77±0.26	3.64±1.06
Interpersonal Manner	3.92±0.78	4.19±0.85	3.25±0.93	4.59±0.4	3.81±1.13
Financial aspects	2.88±1.17	2.93±1.30	2.38±1.00	3.20±0.78	2.84±1.25
Time spent with doctor	2.99±1.04	3.40±1.056	2.97±0.98	4.59±0.45	3.27±1.23
Accessibility and convenience	3.37±0.70	3.46±0.90	2.59±0.97	4.50±0.72	3.23±1.27
Communication	3.72±0.75	3.58±0.91	2.93±0.90	4.64±0.42	4.09±1.03

## Discussion

According to different studies, age has showed a complex relationship with patient satisfaction level. In general, older patients have been found to be more satisfied with the care provided to them as compared to younger patient.<sup>4,5</sup> According to a study conducted in the United States, the older patients are more satisfied with the health care system because over the period of time they have realised the shortcoming of the health care system and have lowered their expectations from the system.<sup>4</sup> It has been shown that younger patients have a more aggressive nature to the care provided to them and prefer control over their own health.<sup>6</sup> A national survey done in Norway concluded that age was not a significant predictor of patient satisfaction level.<sup>7</sup> According to our study, there was no correlation between age of the patient and satisfaction level.

A study conducted on adult epileptic patients concluded that males and females reacted differently to various factors.<sup>8</sup> This study found that the severity of depression was the only quality of life factor that was significantly

different between genders ( $p < 0.01$ ). The difference might be because of different hormonal levels. In our study, females were generally more satisfied in every aspect of patient satisfaction. A study done in China concluded that males had a higher patient satisfaction score.<sup>9</sup> Different socio-economic and racial characteristics of our and their study population might be the reason behind the difference findings. In our society, males are the prime family earners. Their getting sick means loss of income for the family and might be the source of increased stress in male patients as compared to females.

A study published in Singapore concluded that a better match between doctor and patient-oriented treatment resulted in a higher patient satisfaction ( $r = 0.56$ ,  $p < 0.01$ ).<sup>10</sup> Doctors of private hospitals were found to have significantly higher interpersonal score as compared to doctors of public hospitals ( $p = 0.009$ ).<sup>9</sup> Patients admitted into a private hospital might have more expectations from their doctor as compared to patient admitted into a public hospital because of the difference in the amount of payment made by private patients.

Private hospitals are more focused in meeting the demands of their clientele in order to ensure that their patients keep coming back to them. Furthermore, as only a particular class of patients can afford the fees charged by private hospitals, their patient burden is less. Hence, doctors have more time to spend with each patient. Studies have shown that time spent with doctor is directly proportionate to patient satisfaction.<sup>11</sup>

Another study concluded that surgical patients might have increased stress because of fear of complication associated with operation.<sup>12</sup> A study showed that patient satisfaction was more dependent on the patient's perception regarding how their doctors treat their pain instead of on having their pain treated.<sup>13</sup> As surgical patients commonly experience post-operation pain, they might think that doctors are not doing their best to treat their pain. All these factors can contribute to a lower patient satisfaction score in these patients. A study done on arthroplasty patients showed that post-operation complications were significantly associated with patient satisfaction ( $p=0.001$ ).<sup>14</sup> Our results were also compared with other studies done in the area (Table-5).<sup>15-17</sup>

## Conclusion

Female patients, patients admitted to medical specialty and patients admitted to private hospitals had higher patient satisfaction score. Significant efforts should be made to improve the quality of care provided to patients admitted to public hospitals.

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**Conflict of Interest:** None.

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