

Assessment of Patient Satisfaction in Tertiary Care Hospitals of Rawalpindi Medical University: A Cross-Sectional Study

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² Experimentation/Study Conduction
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Abstract

Introduction: Patient satisfaction is considered to be a performance measure for the quality of health care services. It is important to maintain a standard of quality care as this has a direct impact on the clinical outcomes of patients.

Materials and Methods: This descriptive cross-sectional study was conducted in allied hospitals of Rawalpindi Medical University from April to October 2022. A total of 365 patients from all three allied hospitals of RMU were interviewed through a self-structured questionnaire. A convenience sampling method was used. The data collected was entered and analyzed through SPSS version 25. Frequencies and percentages were used to denote the results.

Results: The mean age of the participants was 32.4 years. The mean patient satisfaction score of Benazir Bhutto Hospital was significantly higher than Holy Family Hospital ($p=0.008$). The mean patient satisfaction score for District Headquarters Hospital was 90.27. 86.58% of patients were satisfied with the medical care they received in these hospitals and 80.27% of the patients believed the doctor spent adequate time on their check-up. 66.3% of patients were unsatisfied with the availability of drinking water on the hospital premises.

Conclusion: The majority of the patients were satisfied with the services provided and the attitudes of medical professionals. There were, however, complaints about the standard of hygiene, lack of medicine, and the long waiting time. Appropriate measures should be taken to improve the conditions in the Allied hospitals of Rawalpindi Medical University to ascertain the provision of quality care and improve health outcomes.

Keywords: Patient satisfaction, tertiary hospitals, doctor-patient relation.

Introduction

Patient satisfaction serves as a vital factor for evaluating the quality of healthcare services.^{1,2} It is now considered an important determinant that correlates to both the standard of medical care provided along positively impacting patients' clinical outcomes.³ Patient satisfaction is a diverse construct that depends on multiple factors including various components of health facilities, patient's understanding, environmental factors, and physician-patient relationship.⁴ Given that healthcare services are co-produced by providers and patients, assessing patient satisfaction becomes imperative alongside evaluating the practices of healthcare providers.⁵ Patients' experience at a hospital and their perception regarding the quality of care widely depend on their one-on-one experience with their healthcare providers. Hospital staff including the doctors and nurses, with their approach, can influence how well a patient understands the nature of their ailment, compliance with treatment, and follow-ups.⁶ Research in this area has provided insight into identifying and rectifying gaps in existing medical facilities, thus ensuring the delivery of high-quality care.⁷ Prior research shows that patients belonging to different educational and socio-economic statuses show a difference in levels of satisfaction with care.⁸ Differences in patient age, gender, and cultural background also play a role. Studies on patient satisfaction have recently been on the rise in low-middle-income countries like Pakistan, however comprehensive assessments covering outpatient care at tertiary care public health facilities remain relatively scarce. Tertiary care institutes, serving as vital

referral centers for specialized services, warrant particular attention regarding patient satisfaction assessment to enhance the quality of healthcare delivery. It is therefore essential to keep a high standard of medical care in these facilities. The objectives of this study was to determine the level of patient satisfaction in the Allied Hospitals of Rawalpindi Medical University and to investigate the factors that have a significant impact on satisfaction scores. Through the result of this study, we aim to highlight areas that require immediate attention and improvement to increase patient satisfaction and to overall enhance the quality of care provided at Government hospitals

Materials and Methods

A descriptive cross-sectional study was conducted in tertiary healthcare hospitals of RMU which include Holy Family Hospital, Benazir Bhutto Hospital, and DHQ Hospital. The study population included the patients attending the OPD and admitted to the wards of these three hospitals. The estimated sample size was calculated using a 5% margin error and 95% confidence interval. With the use of these figures, the estimated sample size was 365. A sample of 365 patients was collected through convenience sampling. The inclusion criteria included patients over 10 who were conscious and oriented to time, place, and person. Mentally unstable patients were excluded from this study. Verbal informed consent was taken from every patient taking part in the study.

The data was collected through a sel

structured questionnaire. The data collected was entered and analyzed through SPSS version 25. Frequencies and percentages were used to denote the results. p-value less than 0.05 was considered statistically significant. Reliability of questionnaire was calculated using Cronbach alpha score was 0.91.

Results

Patient demographics and characteristics have been summarized in Table I. 365 patients were included in this study. The mean age of participants was 32.4 years. 182(49.9%) were between 30 and 55 years of age. According to gender distribution, 130 (35.62%) were males and 235 (64.38%) were female. A majority of participants (86.30%) lived in the urban population while 13.70% belonged to rural areas. 12.6% of the participants had no formal education. The number of patients from each hospital was 162 from Holy Family Hospital, 108 from Benazir Bhutto Hospital (BBH), and 95 from District Headquarters Hospital (DHQ).

Patients who sought treatment in Benazir Bhutto Hospital had a mean patient satisfaction score of 93.99 (13.09) which was significantly greater than the mean patient satisfaction score of Holy Family Hospital i.e. 88.83 (14.11) with a p-value of 0.008. The mean patient satisfaction score for District Headquarters Hospital was 90.27. Figure 2 shows that patients who were in the age group 30 to 55 years old had

a significantly greater mean patient satisfaction score of 93.05 (13.29) than those patients who were less than 30 years old with a mean satisfaction score of 88.83 (14.52), $p= 0.006$. Occupation was significantly associated with government servants having high scores 0.047*.

There was no significant difference in mean patient satisfaction score among patients of different marital statuses, residential, educational status.

86.58% of patients were satisfied with the medical care they received in these hospitals and 80.27% of the patients believed the doctor spent adequate time on their check-up. 79.45% of the participants were satisfied with the attitude of their doctors. The sanitation of washrooms was not found to be satisfactory by 75.62% of participants while 69.32% had complaints regarding the unavailability of medicines in the hospital. 66.3% of patients were dissatisfied with the availability of drinking water on the hospital premises (Table-III).

Table-I Participant Demographics and Characteristics

	Total	Male	Female
Total Participants (N)	365	130	235
Age (Year), Mean (SD)	32.46 (11.54)	33.48 (12.72)	31.89 (10.82)
Age Groups			
Age less than 30 years	169 (46.3)	55(42.31)	114(48.51)
Age 30 to 55 years	182 (49.9)	68 (52.31)	114 (48.51)
Age greater than 55 years	14 (3.8)	7 (5.38)	7 (2.98)
Marital Status			
Married	260 (71.2)	82(63.08)	178 (75.74)
Unmarried	105 (28.47)	48 (36.9)	57 (24.26)
Education			
Illiterate	46 (12.6)	14 (10.77)	32 (13.62)
Primary	48 (13.15)	20 (15.38)	28 (11.91)
Secondary	30 (8.22)	9 (6.92)	21 (8.94)
Matric and Above	241 (66.03)	87 (66.92)	154 (65.53)
Occupation			
Daily worker	65 (17.81)	55 (42.31)	10 (4.26)
Housewife	153 (41.92)	0(0)	153 (65.10)
Government	41 (11.23)	24 (18.46)	17 (7.23)
Student	73 (20.00)	28 (21.54)	45 (19.15)
Private Job	33 (9.04)	23 (17.69)	10 (4.26)
Residence			
Urban	315 (86.30)	116 (89.23)	199 (84.68)
Rural	50 (13.70)	14 (10.77)	36 (15.32)
Hospital			
Holy Family Hospital (HFH)	162 (44.38)	61 (46.92)	101 (42.98)
Benazir Bhutto Hospital (BBH)	108 (29.59)	36 (27.69)	72 (30.64)
District Headquarters (DHQ)	95 (26.03)	33 (25.38)	62 (26.38)

Table-II Patient Satisfaction Scores

Variable	Patient Satisfaction Score (SD)	p- value
Total Participants	90.73 (13.99)	
Gender		0.255
Males	89.72 (13.12)	
Females	91.29 (14.45)	
Age Groups		0.007*
Age less than 30 years	88.47 (14.52)	
Age 30 to 55 years	93.05 (13.29)	

Age greater than 55 years	87.86 (13.99)	
Marital Status		0.487
Married	92.11 (14.09)	
Unmarried	87.40 (13.25)	
Education		0.053
Illiterate	94.37 (12.98)	
Primary	87.94 (16.35)	
Secondary	94.50 (11.96)	
Matric and above	90.12 (13.77)	
Occupation		0.047*
Daily worker	89.29 (14.07)	
Housewife	92.78 (13.74)	
Government Servant	92.88 (13.72)	
Student	87.62 (13.19)	
Private Job	88.27 (15.81)	
Residence		0.77
Urban	90.45 (13.95)	
Rural	92.48 (14.28)	
Hospital		0.01*
Holy Family Hospital (HFH)	88.83 (14.11)	
Benazir Bhutto Hospital (BBH)	93.99 (13.09)	
District Headquarters (DHQ)	90.27 (14.27)	

Table-III Participant responses to individual questions in the questionnaire

Item	Strongly Disagree n(%)	Disagree n(%)	Neutral n (%)	Agree n(%)	Strongly Agree n(%)	Not Satisfied n (%)	Satisfied n (%)
The Medical care I have been receiving is completely satisfactory	4 (1.1)	21 (5.8)	24 (6.6)	229 (62.7)	87 (23.8)	49 (13.42)	316(86.58)
When I go for medical care, everything is carefully checked and examined	5 (1.4)	30 (8.2)	37 (10.1)	208 (57.0)	85 (23.3)	72(19.73)	293(80.27)
My doctors treat me in a very friendly and courteous manner	1 (0.3)	30 (8.2)	44 (12.1)	193 (52.9)	97 (26.6)	75 (20.55)	290 (79.45)
The doctor describes the reasons for the medical tests adequately	11 (3.0)	50 (12.7)	81 (22.2)	164 (44.9)	59 (16.2)	142(38.90)	223(61.09)
Doctors listen carefully and do not ignore what I tell them about my health and sickness	6 (1.6)	30 (8.2)	65 (17.8)	185(50.7)	79(21.6)	101(27.67)	264(72.33)
Doctors here do not hurry when they treat me.	9(2.5)	46(12.6)	70(19.2)	172(47.1)	68(18.6)	125(34.25)	240(65.75)
I'm completely satisfied with the amount of time doctors spend with me	7(1.9)	44(12.1)	51(14.0)	188(51.5)	75(20.5)	102(27.94)	263(72.05)
I have easy access to the medical specialists I need	5(1.4)	50(13.7)	79(21.6)	163(44.7)	68(18.6)	134(36.71)	231(63.29)

People don't have to wait too long for emergency treatment here	13(3.6)	63(17.3)	87	153	49	163	202
I find it very easy to get the doctor's appointment I need right away	12	60	73	165	55	145	220
I can get medical care whenever I need it. (n)	(3.3)	(16.4)	(20.0)	(45.2)	(15.1)	(39.73)	(60.27)
I think my doctor's office has everything needed to provide complete medical care	6(1.6)	29(7.9)	92(25.2)	188(51.5)	50(13.7)	127(34.79)	238(65.2)
Doctors do not act too impersonal towards me, instead treat me with empathy	6(1.6)	57(15.6)	83(22.7)	167(45.8)	52(14.2)	146(40)	219(60)
I am satisfied with the services provided by the nursing staff	6(1.6)	28(7.7)	52(14.2)	194(53.2)	85(23.3)	86(23.56)	279(76.44)
I am satisfied with the attitude and attention of nurses towards every patient	11(3.0)	62(17.0)	83(22.7)	163(44.7)	46(12.6)	156(42.74)	209(57.26)
I can easily afford the medical bill	20(5.5)	62(17.0)	79(21.6)	152(41.6)	52(14.2)	161(44.11)	204(55.89)
The nurses and staff treated me with courtesy and respect	15(4.1)	60(16.4)	81(22.2)	149(40.8)	60(16.4)	156(42.74)	209(57.26)
I was listened to carefully and things were explained understandably to me by the staff	11(3.0)	61(16.7)	86(23.6)	164(44.9)	43(11.8)	158(43.29)	207(56.71)
The hospital supporting staff talked politely and were helpful to me	5(1.4)	62(17.0)	90(24.7)	168(46.0)	40(11.0)	157(43.01)	208(56.99)
Security guards of the hospital were polite with me	10(2.7)	55(15.1)	87(23.8)	170(46.6)	43(11.8)	152(41.64)	213(58.36)
The cleanliness of the hospital premises was adequate and satisfactory	21(5.8)	62(17.0)	86(23.6)	149(40.8)	47(12.9)	169(46.30)	196(53.70)
Drinking water is easily available in the hospital	29(7.9)	103(28.2)	75(20.5)	126(34.5)	32(8.8)	207(56.71)	158(43.28)
I got all the medicines easily from the hospital as they have all the medicines	45(12.3)	119(32.6)	78(21.4)	104(28.5)	19(5.2)	242(66.30)	123(33.70)
I am satisfied with the sanitation of the washrooms.	38(10.4)	116(31.8)	99(27.1)	99(27.1)	13(3.6)	253(69.32)	112(30.38)
I am satisfied with the speed of the registration process.	65(17.8)	129(35.3)	82(22.5)	76(20.8)	13(3.6)	276(75.62)	89(24.38)
I will recommend this hospital to my family and friends	15(4.1)	85(23.3)	85(23.3)	142(38.9)	38(10.4)	185(50.68)	180(49.32)
	19(5.2)	41(11.2)	108(29.6)	143(39.2)	54(14.8)	168(46.03)	197(53.97)

Discussion

Patient satisfaction is an important tool to ascertain a patient's opinion about the health services provided in hospitals and ultimately the effect on clinical outcomes.⁹ A vast majority of factors are found to affect a patient's degree of satisfaction; hence knowledge of these factors can help raise the quality of health services and improve patients' experiences. Unfortunately, such practices are not common in Pakistan, especially in public sector hospitals.

In this study, we found that older patients (30-55 years old) had a greater level of satisfaction with the services provided as compared to younger patients (less than 30 years old). This is in accordance with existing literature on patient satisfaction.¹⁰ However, Vuong et al. found that younger patients and those with greater earnings had an overall higher level of satisfaction.¹¹ It is still unclear why there exists a positive relationship between mean patient satisfaction scores and the age of the patients. Some literature suggests there may be a relationship between patients' attitudes and their perceptions before care.¹²

The mean satisfaction level of patients in Benazir Bhutto Hospital (BBH) was found to be significantly higher than that of Holy Family Hospital. This may in part be due to the better quality of health services offered by Benazir Bhutto Hospital (BBH). District Headquarters Hospital (DHQ) also had a higher satisfaction score than Holy Family Hospital. This shows that steps to improve patient-centered care should be taken as a priority in Holy Family Hospital.

Patients with no formal education and those

with only secondary education reported somewhat higher satisfaction scores. Jose M Quintana et al. found that unmarried or divorced individuals had greater scores in certain domains.¹³ However, our study shows no significant relation between the marital status of patients and their contentment with the care provided.

There is no significant association between the gender of the patient and satisfaction scores in our study. Literature though, seems to have mixed findings with certain studies showing that men display a higher satisfaction score¹⁴ while other females had a higher satisfaction score.¹⁵ We also assessed the possible effect that our participants' employment status may have, but no significant findings were made in this regard.

One of the crucial determining factors in any patient's experience in a health care center is the attitude of their attending physician. Doctor-patient relationship undeniably has a huge impact on clinical outcomes and patient compliance.¹⁶ It encompasses the patients' trust in the doctors and the nursing staff. This can also impact the patient's future health-seeking behaviors. Keeping this in view, our self-designed questionnaire had questions regarding the attitude and attention paid by the doctors, nurses, and hospital staff. A comprehensive number of patients showed a positive response to these questions and seemed to be content with the empathetic approach of the hospital staff. This is because in recent years there has been an increased effort to create a patient-friendly hospital environment in all three hospitals.

The hospital's physical environment also plays a vital role in determining patients' satisfaction levels. A supportive environment

is seen to promote the well-being of the patient.¹⁷ We found that the sanitation of washrooms was not found to be satisfactory by 75.62% of participants while 66.3% of the patients were dissatisfied with the lack of drinking water on the hospital premises. Over two-thirds of the patients also complained about the hospital's lack of medicines. A contributing factor to such views is the immense burden of patients these hospitals must provide care to.

In summary, a patient's experience in a hospital is a determining factor in their compliance with treatment, ensuring follow-ups, and overall satisfaction levels regarding health care services. A lot of steps need to be taken so that patients receive adequate services in health centers and to ensure regular evaluations of their satisfaction scores to raise the overall standards of our healthcare system. These include improving sanitation, ensuring the availability of medicines, and providing access to clean drinking water. Additionally, efforts can be made to reduce waiting times and to improve the comfort and functionality of waiting areas.

Results of our study has highlighted various aspects of hospital services and facilities that our participants considered to be unsatisfactory. This provides us with a good opportunity to properly address and improve all these elements to ensure better overall patient contentment with the hospital. Once all the adequate measures and given issues have been addressed, a survey should be conducted in all three hospitals to evaluate improvements in patient satisfaction scores.

Conclusion

The majority of the patients were satisfied with the services provided, including the doctors' attitude, time for examination, and treatment provided. Some complained about the hygiene of bathrooms and, the unavailability of drinkable water and medicine in hospitals while some were unsatisfied with the attitude of nurses. We recommend that measures be taken to improve the above-mentioned conditions in Allied hospitals of Rawalpindi Medical University. Such improvements will encourage people to choose Government Hospitals for treatment leading to better healthcare outcomes for all patients belonging to different socio-economic levels.

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