Service Quality Assessment of Government Hospitals of Raipur City

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Abstract

Examining expectations and experience of service quality in healthcare provided by government hospitals in Raipur City is the primary goal of this study, which also uses a gap analysis to explore the discrepancy between expectations and perceptions. In order to determine the underlying advantages that patients seek, this study evaluates how people view health care services generally and identifies the components that underpin their wish expectations. The purpose of this paper is to identify and assess the services that government hospitals utilise to address the difficulties of quality improvement in healthcare. To gauge the construct and its characteristics, a 35-item questionnaire was created. This research aims to evaluate the performance of five different service quality metrics in Raipur's public healthcare system. The exploratory approach of the study makes use of factor analysis to pinpoint the most crucial aspects of patients' perceptions of the government hospitals in Raipurpur city's service quality.

Keywords: Service Quality, Government Hospitals, Health care services, Factor analysis, Patients

Introduction

In the previous several decades, Chhattisgarh's healthcare services have seen a tremendous development. There are several governmental and private healthcare facilities in Bilaspur. In Raipur city, the government now oversees one medical college, two government hospitals, one dentistry hospital, one district hospital, and a number of healthcare facilities. However, there are many licenced and unlicensed medical professionals in the state, and they are crucial to the delivery of healthcare to both urban and rural populations. The goal of this study is to evaluate the level of service provided by government hospitals in Raipur with a particular emphasis on health care services. Hospitals play a crucial role in the Indian healthcare system. They offer both inpatient and outpatient care, as well as aid in medical professional training and research. Public, private, and not-for-profit hospitals are the three main categories of hospitals in India. Large towns and cities now have corporate hospital chains that offer tertiary healthcare services. The public healthcare system is made up of medical institutions administered by the federal and state governments that offer free or heavily discounted services to low-income groups in both urban and rural locations. The primary determinant of the quality of a medical treatment is the patient's impression (Cronin & Taylor, 1994). Although the actual level of service quality might be fairly low (or high), some studies claim that the most important factor is how patients sod customers view the effectiveness of medical treatment. According to the majority of academics that have looked into the matter, customer happiness and perceptions of the quality of the services are related (Cronin & Taylor, 1994). However, Gronroos (1984) outlines two components that make up health care services:

technological and functional excellence. Technical quality is concerned with technical analyses, medical diagnoses, and processes, whereas functional quality is concerned with how the patients are provided with healthcare (Lam, 1997). In other words, technical quality refers to what the patients receive, whereas functional quality refers to the method of delivery. Despite the fact that technical quality is highly valued by patients, the majority of patients lack the technical knowledge to evaluate medical diagnoses and technological treatments (Ware and Snyder, 1975). Because most patients lack the expertise necessary to assess the technical quality of health care services, their assessments of quality are focused on the course of medical treatment. According to Bowers et al. (1994), technical quality is not a really helpful indicator of how patients assess the value of a medical care encounter. The functional quality as seen by patients is the emphasis of the service quality approach, which has been widely utilised to assess health services. There haven't been many research on how Indian patients see healthcare services. It is crucial to understand how patients feel about public health care services if you want to know how satisfied they are. The validity and reliability of these measures, which are used in the majority of research to gauge patients' opinions of the quality of medical care, remain unknown. Studies have also revealed that India's public health care system is underutilised, which makes patient opinions on health services a crucial component of gauging the quality of public health care. Although these scales are dubious in the Indian setting, they are appropriate there. This study's primary goal is to create a tool to measure how patients in Raipur city's government hospitals perceive their access to healthcare.

Literature Review

Given its significant correlation with costs (Crosby, 1979), profitability (Zahorik and Rust, 1992), customer satisfaction (Bouldinget al, 1993), customer retention (Reichheld and Sasser, 1990), and service guarantee (Kandampully and Butler, 2001), service quality has emerged as an important research topic. Customer satisfaction is also impacted by service quality. According to Berry et al.'s (1988) common definition of service quality, "conformance to customer specifications," it is the customer's notion of quality that counts, not managements. A variety of instruments have been created to gauge patients' views and expectations. The definitions, contents, and measurements of these tools vary (Uzun, 2001), but the SERVQUAL instrument created by Parasuraman, Zeithaml, and Berry (1988) is still the most commonly used to: 1. assess the relative contribution of the five customer perception-influencing dimensions of tangibility, reliability, responsiveness, assurance, and empathy; and 2. monitor quality trends over time. After that, Woodside et al. (1989) used the SERVQUAL model to favourably validate a model that predicts customer satisfaction and purchase intention based on medical services quality data. They defined medical services quality as the difference between consumers' expectations and the actual performance. In a hospital context, the SERVQUAL instrument has undergone empirical evaluation and been found to be a valid and trustworthy tool (Babakus and Mangold, 1992). The SERVQUAL technique of analysis has also been employed in other studies of health care quality measurement (Canel and Fletcher, 2001). Medical service quality was divided by Woodside et al. (1989) into two categories: narrow and broad. The former refers to performance towards medical services over a short period of time, while the latter refers to long-term behaviour towards medical services offered. They therefore divided the elements that make up the quality of medical care into the following categories: 1. Service supply that meets ostensible needs flawlessly, 2. Service delivery that meets patient expectations, and it was stated that a multi-dimensional approach is required to gauge service quality in health care companies. Convenience of service providing and operating procedure. According to John (1991), improving patient-doctor communication can improve the quality of medical services. He also used the terms "technical care" and "emotional care" as defined by Brook and Williams (1975). Technical care indicates the precision of the diagnostic and treatment process, whereas emotional care, which includes the hospital's physical

environment, involves the provider's attitude and the patient and doctor's communication. Bopp (1990) proposed the theory that patients primarily value technical quality in medical services when they receive better care. He emphasised that patients place a high value on this when they receive better care, and he used newly developed 72 expectation/performance items to positively verify his hypothesis. Medical service quality, according to Lytle and Mokva (1992), should satisfy patients' demands and be measured by the outcome, process, and physical environment of the service. Additionally, they conceptualised the quality of medical services in three aspects, including relationships with medical staff and the physical environment and relationships with patients.

Research Methodology

In order to assess the service quality of these hospitals from the viewpoint of the patients, a survey of the patients who visited the Dr. Bhimrao Ambedkar Memorial Hospital (MEKAHARA) and District Hospital in Raipur city was conducted to learn about their expectations and perceptions regarding the services provided by government hospitals. Each hospital had a sample of 60 patients, resulting in a sample size of 120 respondents for the current study. Only those individuals who were hospitalised for treatment in these hospitals were chosen for the sample using a purposeful sampling procedure. The sampled respondents were surveyed using a structured questionnaire to gather primary data. at order to get the data, interviews with patients were done at the hospitals. The researcher answered all of the questions right away, which led to a response rate of 100%. The questionnaire was created using a modified version of SERVQUAL, which was created by Parasuraman et al. in 1991. The updated SERVQUAL was expanded with 13 pairs of additional questions following an initial review by academics and researchers. The questionnaire was broken down into four sections: expectations and perceptions, ranking of service quality factors, and demographic profile. The 35 pairs of statements relevant to service quality were given to the respondents to rate. All statements in the questionnaire had responses graded on a five-point Likert scale, where 1 meant strongly disagree and 5 meant strongly agree. Demographic information such as gender, age, education level and income was also collected. Collected data were processed in the statistical software package of SPSS-20.

Data Analysis & Discussion

Table 1: *Respondent's profile*

Particulars	Frequency	%
Gender		
Male	69	57.5%
Female	51	42.5%
Age		
Up to 30	19	15.8%
31-40	27	22.5%
41-50	45	37.5%
Above 50	29	24.2%
Education		
Illiterate	34	28.3%
Up to 12th	67	55.8%
Graduate & Above	19	15.8%
Region		
Urban	41	34.2%
Rural	79	65.8%

Table 1 lists the respondents' demographic characteristics. The percentage of male and female respondents is 57.5% and 42.5%, respectively, among the 120 respondents from the two government hospitals. Out of 120 respondents, 15.8%, 22.5%, 37.5%, and 24.2%, respectively, were under the age of 30, between the ages of 31 and 40, 41 to 50, and above 50. The remaining patients were educated up to graduate level or higher, while the remaining 28.3% of respondents had education levels as low as illiteracy. While 65.8% of the overall sample's patients were urban, the remaining 34.2% were rural.

The Expectation and Experience Gap

The results of the modified SERVQUAL questionnaire must be gathered, and the data must then be analysed using a variety of statistical techniques. The following data will be analysed in this study using a unique measurement. The Table 2 illustrates the disparities in service quality. This study's findings demonstrate that every product has a negative value, and patients' opinions of the service fall short of their expectations.

Table 2: *Mean score for modified SERVQUAL dimensions*

S. No	Particulars	Expectation (Mean)	Experience (Mean)	Gap
	Tangibility			
1	Clean rooms, bathrooms and toilets	4.8	3.96	-0.84
2	Unique dress code and neat appearance of staff	4.78	4.19	-0.59
3	Proper sitting and bedding arrangement for patients	4.69	3.58	-1.11
4	Modern looking equipment	4.63	4.04	-0.59
5	Facility for electricity and hygenic drinking water	4.69	4.03	-0.66
6	Medical store, diagnostic centre and a blood bank	4.63	4.13	-0.5
7	Proper parking, a notice board and a suggestion bok	4.51	3.52	-0.99
8	Sufficient doctors, nurses and technical experts	4.69	3.9	-0.78
9	Functional hygienic canteen	4.49	3.43	-1.06
10	Sufficient number of ambulances	4.63	3.96	-67
11	Distbins and pittoons	4.54	3.69	-0.85
12	Sufficient supply of oxygen cylinders	4.59	3.73	-0.86
	Reliability			
13	Consistency in providing promised services on time	4.62	3.68	-0.94
14	A maintained record book of patients	4.59	3.81	-0.78
15	Fair and reasonabile service charge	4.53	3.89	-0.64
16	Upgrade treatment facility from time to time	4.66	3.89	-0.77
17	The hospital ties up with other hospitals	4.6	3.73	-0.87
18	Explained procedure of treatment to the patient	4.46	3.55	-0.91
	Responsiveness			
19	Willingness to help the patients	4.55	3.55	-1
20	Quick and simple process of admission	4.61	3.67	-0.94
21	Less formal hospital management	4.49	3.65	-0.84
22	Efficient, effective and prompt discharge service	4.54	3.93	-0.61
23	Properly addressed queries of patient	4.57	3.53	-1.04
24	Prompt response to the complaints of the patient	4.61	3.48	-1.13
	Assurance			
25	Well educated and knowledge able hospital staff	4.62	4.07	-0.55
26	Assurance of recovery before getting discharged	4.65	3.95	-0.7
27	Experienced doctors	4.65	4.11	-0.54

28	The receptionist ability to convey information accurately	4.57	3.45	-1.12
29	The visitors should be properly treated	4.47	3.51	-0.96
30	On duty employees availability	4.53	4.03	-0.5
31	Proper examination before writing a prescription	4.71	4.07	-64
	Empathy			
32	Impartiality in the behaviour towards the patients	4.51	3.62	-0.89
33	Operating hours convenient for all the patients	4.65	3.58	-1.07
34	Individual attention to the patients	4.47	3.2	-1.27
35	Consideration of financial condition	4.3	3.39	-0.91
	Average (SERVQUAL)	**4.5894**	**3.7574**	**-0.832**

The three columns in the above table show the summary results for the mean scores from the sample. When the perception and expectation gap is negative, it means that patients believe that the government hospitals' health care services fall short of their initial expectations and that there are gaps in the quality of those services. The results indicate a shortfall on every item assessed.

Factor Analysis

Four significant components were identified via principal component analysis. at order to determine the numerous determinants of service quality at district hospitals in Eastern Uttar Pradesh, this research article used exploratory factor analysis. Orthogonal rotation using Varimax was used after Principal Component analysis to extract the components. Only the factors with latent roots or eigen values greater than one were considered significant when determining how patients perceived the quality of the services provided by government hospitals; all other factors with latent roots less than one were deemed insignificant and ignored. In this study, we initially employed 35 questions, however the exploratory factor analysis only allowed us to extract 17 items. The extracted influencing factors of service quality along with their eigen value are shown in the Table 3.

Table 3: *Varimax rotation matrix*

S. No	Particulars	1	2	3	4
	Physical Aspects				
1	Unique dress code and neat appearance of staff	0.709			
2	Proper sitting and bedding arrangement for patients	0.8			
3	Medical store, diagnostic centre and a blood bank	0.715			
4	Sufficient doctors, nurses and technical experts	0.73			
5	Distbins and pittoons	0.745			
	Assured Reliability				
6	Consistency in providing promised services on time		0.847		
7	The hospital ties up with other hospitals		0.729		
8	Properly addressed queries of patient		0.891		
9	Prompt response to the complaints of the patient		0.775		
10	Assurance of recovery before getting discharged		0.738		
11	Experienced doctors		0.751		
	Easy Formalities				
20	Quick and simple process of admission			0.797	
21	Less formal hospital management			0.816	
22	Efficient, effective and prompt discharge service			0.768	
	Personal Impartial Attention				

32	Impartiality in the behaviour towards the patients	0.78
33	Operating hours convenient for all the patients	0.756
34	Individual attention to the patients	0.895

This study's primary goal was to present a conceptual framework for a health care service quality model so that patients' expectations and perceptions of government district hospitals could be better understood. The study employed a modified SERVQUAL questionnaire, but the factor analysis results did not support the structure proposed by Parasuraman et al. Instead, four dimensions—Physical Aspects, Assured Reliability, Easy Formalities, and Personal Impartial Attention—emerged. The EFA findings identified the following four aspects of the health care service quality:

Factor-1 (Physical Aspects):

This factor included5 items relating to the physical aspects, which explained 36.64% of the total variance and was labelled as ―Physical aspects.‖

Factor-2 (Assured Reliability):

This factor includes both Assurance and Reliability‘6 items, which explained 12.99% of the total variance and was named ―Assured Reliability.‖

Factor -3 (Easy Formalities):

It includes 3 items, which explained 8.86% of total variance and was named ―Easy Formalities‖

Factor-4 (Personal Impartial Attention):

This factor includes 4 items relating to Personal care, which explained 4.25% of the total variance and was named ―Personal Impartial Attention‖

Scale Reliability and Validity:

Multi-item scale should be evaluated for reliability, validity and generalizability. This research paper assessed the reliability by using internal consistency reliability approach. Validity can be assessed by examining content validity, criterion validity and construct validity.

Conclusion

In this study, a 17-item scale that can be used to assess perceived quality for both in-patients and out-patients at government hospitals in Raipur city was developed from a total of 35 items. According to the investigation, there are four main aspects of perceived quality in healthcare services: (i) physical aspects, (ii) assured reliability, (iii) simple formalities, and (iv) personal impartial attention. These parameters reveal details on the medical treatment that patients in Eastern Uttar Pradesh get. The perceived quality measure's validity and reliability were evaluated in a number of different methods, and it was discovered that the scale had high validity and reliability across diverse patient types and facility levels. The overall quality perception scale's strong alpha coefficient shows that the scale's final items assess a single underlying construct. The features of the sampled patients closely match those of Raipur's general populace. Planning for quality improvement at government hospitals in Raipur city might be based on the findings. The findings suggest that government district hospitals should concentrate their efforts on physical aspects of quality improvement, such as staff appearance and uniforms, seating and bedding arrangements, a sufficient number of ambulances, dustbins, and spittoons, as well as medical stores, diagnostic centres, and blood banks. Government should also focus on assured reliability, which is a package of benefits that includes: delivering

promised services on time, being dependable in general, and being able to be counted on. The third proposal is based on the aspect of easy formalities; hospitals pay attention to particular features like a rapid and simple admissions procedure, less formal hospital administration, and a quick, efficient, and timely release. Last but not least, each patient should receive impartial care, hospital personnel should treat patients fairly, and operation hours should be convenient for all patients.

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