

Analyzing the Effect of Service Quality on Patient Satisfaction

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Abstract

There has been an increasing focus on service quality, which is closely connected to the success of businesses in terms of profitability and market share. Quality improvement in healthcare services is necessary to ensure that patients are completely satisfied with their treatment. In today's private hospitals, quality improvement approaches are being sought to attract and please patients. Recently, India has seen a significant increase in the quality and efficiency of both public and private sector healthcare, which has resulted in increased patient satisfaction. Aiming towards maximum patient happiness, this research examines the effect of service quality on patient satisfaction in a small number of private hospitals. The SERVQUAL and a survey of 500 OPD patients are used in the research. It is a descriptive study that uses statistical methods like regression, ANOVA, chi square, etc. to make conclusions from the current characteristics of service quality. The primary goal of this study is to examine how OPD patients' satisfaction levels are affected by various aspects of service quality and to establish a connection between those results. Patients at OPD are asked to fill out a survey about their knowledge about many aspects of health care quality, such as dependability, assurance, tangibles, responsiveness, and empathy. This information is gathered via a study of the literature. This study uses gap analysis and patient satisfaction data to look at many aspects of hospital service quality (HSQ) (PS).

Keywords: - Service, Quality, Value, Healthcare, patient expectation and perception.,

1. INTRODUCTION

It is a person's perception of a service's performance or outcome in relation to their expectations that determines their level of satisfaction or dissatisfaction. Perceived performance and expectations are key factors in determining satisfaction, as this definition shows. The patient gets unhappy if the performance does not meet their expectations. The patient is happy if the performance is in line with what they expected. The patient is happy or thrilled if the performance is above and above what was expected. An essential and widely used indicator of care quality, it may contribute to a balanced assessment of service structure, process, and result. It is widely used to assess the quality of care. There are several aspects that contribute to patient satisfaction; they include the accessibility and convenience of services; institutional structure; interpersonal interactions; the competency of health care providers; and patient expectations and preferences. The level of pleasure patients and their loved ones have with hospital treatment is increasingly a more important consideration. It is well accepted that patient satisfaction is a crucial metric for determining the quality of medical treatment. Continuous monitoring of patients' expectations is projected to lead to improvements in hospital care quality via this cost-effective technique. In addition to helping hospital managers improve their patient-care procedures, satisfaction surveys may also provide valuable information on patients' health-related habits. Patients now have more expectations than ever before in the healthcare industry, which is highly competitive. There has been an increase in the difficulty of attracting and retaining patients. Patients' loyalty, the hospital's reputation, perceptions of treatment quality, personnel retention and the financial health of a hospital are all impacted by how satisfied they are with the care they get. In order to achieve the objectives of healthcare, patient happiness is a must since it affects the patient's choice to follow recommended treatments and seek future professional healthcare. When it comes to a patient's pleasure, treatment quality and the quality of a physician may not be the only factors that come into play. In spite of the fact that their primary goal is to get healed and return to work, there are other aspects that influence how happy they are with the treatment they receive. Managers must take control of both the patient's perceptions of expectations and the quality of healthcare services in order to achieve the best degree of patient satisfaction and profitability. There are many factors that contribute to customer happiness, including both clinical and nonclinical outcomes of treatment, which make it challenging to accurately measure satisfaction and evaluate response in health systems. Patients' happiness with outpatient care has been

extensively studied, but just a few research in India have examined how satisfied they are with hospital services as an inpatient.

2. LITERATURE REVIEW

Nhi Xuan Nguyen (2021) - Healthcare quality research has to be more contextualized and patient-centered, since models from rich nations are not appropriate for developing countries. It has long been overlooked by the academic community, yet research into private healthcare services in Vietnam is of great economic and business significance. There are a number of factors that might affect patient happiness, perceived value, and customer loyalty when it comes to private healthcare in Vietnam. The qualitative portion of this mixed-method research included five inpatients, while the quantitative portion included 368 inpatients from Vietnam's hospitals. Based on this qualitative research, a conceptual model for private healthcare services' service quality is developed. Quantitative analysis is used to examine the link between the conceptual model's various components using structural equation modelling (SEM). Emotion, function, social impact, and trust were the four aspects of service quality. Customers' perceptions of value and satisfaction are strongly influenced by several of these factors. Customers' perceptions of value are not much influenced by emotion, and neither are their feelings about the product's performance. Social influence is an under-recognized factor in the literature on service quality, although it has the greatest effect on customer satisfaction and perceptions of value. This study's quantitative findings demonstrate that customer loyalty (measured by word-of-mouth and return intention) is strongly influenced by customer satisfaction, but not by consumer perceptions of value. In order to increase service quality, the report recommends that both private healthcare providers and the Vietnamese government spend resources. Investing in social branding and e-services may help practitioners connect with their consumers. A cost-benefit analysis and comparison of the impact of service quality aspects on consumer behaviour intention should be the subject of future study.

Dr.Vaishali Sharma (2020) The purpose of this study is to demonstrate the link between the perceived quality of online health information service and the level of customer happiness. In times of crisis, a country's health infrastructure serves as a pillar. People are increasingly turning to the internet and social networking sites (SNS) to search and read Online Health Information (OHI), which affects their ability to make sound decisions about the country's health care system as a whole. OHI communicates with its customers in a variety of ways, including blogs, health-related websites, social media, and more. There are a number of websites dedicated to disseminating information from hospitals. The OHI's service quality and customer satisfaction are based on this information. They are further influenced by this, either in a good or bad way. So, it is vital to investigate these elements and their link to OHI. To get a sense of how people felt about OHI, a poll was done. Respondents in our sample are mostly drawn from the Delhi NCR region of India. In order to analyze the data, we utilised spss version 17.0 and a self-created Google form to gather data using t-test and correlation approaches.

Rama Koteswara Rao Kondasani (2015) The goal of this article is to examine how customer happiness and perceived service quality influence consumer loyalty to healthcare providers. Five private hospitals in India each had 475 patients engage in a questionnaire study. In order to better understand the relationship between consumer satisfaction with service providers and their loyalty, descriptive statistics, factor analysis, regression, and correlation statistics were used. A favourable connection between service seekers and providers, the quality of facilities, and interactions with support workers all have an impact on customer perception, according to the findings of this study. Health care managers may use the information to develop more effective methods for providing their patients with higher-quality treatment. The findings of this research may be used by healthcare management to increase consumer loyalty to their services and, as a result, increase revenue. Management and providers of private healthcare in India might benefit from this study by gaining a better understanding of patient attitudes and loyalty.

Nasim Kazemi (2013) This study uses gap analysis and patient satisfaction data to look at many aspects of hospital service quality (HSQ) (PS). Using the principal component analysis approach and conformity factor analysis, it also tries to gauge how satisfied patients are with three aspects gleaned via exploratory factor analysis (EFA) (CFA). In addition, the research uses structural equation modelling (SEM) to examine the link between HSQ and PS in the context of Iranian hospital services. The greatest "responsiveness" and the smallest "assurance" gaps were found. According to the results, patients were most satisfied in terms of "trust," coming in first with a mean score of 3.83, followed by "General Satisfaction," at 3.68, and "Acceptance," at 3.53. Two models were used to assess the quality of the hospital's services and the happiness of its patients, and one structural model was utilised to highlight the connections between the two models. The findings of this research demonstrated that patient satisfaction was positively impacted by the quality of hospital services (0.463). Hospital service quality and five aspects were shown to have a favourable and substantial association. Another

finding showed a strong and positive correlation between patient satisfaction and the three categories of satisfaction studied (General Satisfaction, TRUST, and ACCEPTANCE). Finally, the hospital was given with management ideas and practical recommendations.

Sabita Mahapatra (2013) The Indian healthcare industry has become more competitive as a result of rapid expansion and rising income levels among the country's population. Service quality plays an important role in deciding whether or not to choose a certain hospital. The study's goal is to find out if Indians prefer public or private hospitals for their healthcare needs. The 'SERVQUAL' tool was used to gauge how patients in India's capital city felt about the quality of treatment they received from public and private hospitals. A study of 192 patients found a discrepancy in patients' expectations and perceptions of the quality of treatments provided by public and private hospitals. Using logistic regression analysis, we were able to predict whether a patient would be more likely to go to a public hospital than a private one. The classification accuracy of the regression model was 94.9 percent. Analysis of clusters indicated a preference for a certain hospital. Hospital administrators may use the study's results to better allocate and mobilize resources depending on patient satisfaction with the level of care they get from these facilities.

3. RESEARCH AND METHODOLOGY

Convenience sampling was employed to pick 500 OPD patients from private hospitals in southern Rajasthan. Use of SERVQUAL model is used to get primary data on customer satisfaction with services from the suppliers. Tangibility, Reliability, Responsiveness, Assurance, and Empathy were some of the most important factors considered in this research. Cronbach Alpha Value is .852 when evaluating the products' dependability.

4. DATA ANALYSIS

Table 1. Demographic Profile

Variable	No. of respondents	Percentage
Gender		
Male	356	71.2%
Female	144	28.8%
Age		
Less than 20 Years	20	4%
21-30 Years	96	19.2%
31-40 Years	212	42.4%
41-50 Years	162	32.4%
More than 50 Years	10	2%
Monthly Income		
Below Rs. 20,000	40	8%
Rs. 20,000- Rs. 30,000	30	6%
Rs. 30,000- Rs. 40,000	128	25.6%
Rs. 40,000- Rs. 50,000	252	50.4%
More than Rs. 50,000	90	18%
Awareness		
Yes	3200	64%
No	180	36%
Satisfaction Level		
Satisfied	376	75.2%
Dissatisfied	124	24.8%

Interpretation: The proportions of several independent variables in the sample are shown in the respondents' demographic profiles. A relationship and influence on a dependent variable may be determined by defining these variables. Gender is represented by 71.2% males and 28.8% females, with the majority of respondents (42.4%) falling between the ages of 31 and 40, and the majority of respondents (50.4%) earning between Rs. 40,000 and Rs. 50,000 each month. (Table 1) Of the 500 respondents, 320 are aware, and 376 are happy with the health care services offered by private health care facilities.

Table 2. Satisfaction Level

Gender	Satisfaction of Patients		Total
	Satisfied	Dissatisfied	
Male	296	60	356
Female	80	64	144
Total	376	124	500

This table shows the main data compilation in the form of 376 pleased patients and 124 unsatisfied patients. The patient satisfaction and respondents' gender are cross-tabulated (Table 2). As opposed to females, 296 of 356 men are content and 60 are unhappy, whereas the proportion of satisfaction in males is as high as 83%. A statistical tool is used to examine the relationship between the two variables being studied.

Table 3. Chi Square Output

Calculated Value	Tabular Value	Degree of freedom	Hypothesis
20.91	3.84	1	Rejected

Interpretation: Hypothesis nil the chi square test demonstrates that there is no correlation between socio demographic characteristics (age and gender) and patient satisfaction, and hence the chi square is rejected at a 95 percent level of significance. Gender and patient satisfaction may be deduced from the statistical analysis.

Table 4 Patients' pleasure

Age	Satisfaction of Patients		Total
	Satisfied	Dissatisfied	
Less than 20 Years	4	16	20
21-30 Years	72	24	96
31-40 Years	164	48	212
41-50 Years	126	36	162
More than 50 Years	6	4	10
Total	376	124	500

Patients' pleasure is compared to their age to examine whether the independent variable has any bearing on the dependent variable, which is their level of contentment. According to the cross-tabulation, 376 of the 500 patients were pleased, while 124 were dissatisfied, and satisfaction percentages varied by age. Higher-aged folks seem to have a greater sense of well-being. The chi square test is used to determine the significance of this discrepancy.

Table 5. Chi Square Output

Calculated Value	Tabular Value	Degree of freedom	Hypothesis
17.506		4	Rejected

Interpretation: According to the null hypothesis, there is no correlation between patients' age and how satisfied they are with the quality of health care delivered by the private hospitals included in the study. At a level of significance of 95%, the chi square value is computed and compared to the tabular value. The null hypothesis is rejected since the computed value exceeds the tabular value. According to the findings, there is a considerable correlation between patient age and their level of satisfaction with their health-care experience. Service Quality Model (SERQUALModel) is used for gap analysis.

Gap analysis was carried out in the following step to examine the service quality gaps (perceptions and expectations from the respondents) of PHC. The SERVQUAL method was used to determine gaps (Table 6) by subtracting respondents' expectations (E) from their perceptions (P). Thus, patients' expectations and perceptions of health care services supplied by private hospitals are perfectly aligned.

Table 6. The Average Mean Values of the Perception and Expectation SERVQUAL Model

Dimension	Perception		Expectation		Gap Score	T Value	Sig
	Mean	Std. Dev.	Mean	Std. Dev.			
Tangibility	2.751	0.647	3.712	0.413	-0.961	2.641	0.000
Reliability	2.421	0.842	3.661	0.357	-1.240	4.967	0.000
Responsiveness	2.161	1.112	3.715	0.647	-1.554	7.562	0.000
Assurance	2.517	0.951	3.814	0.791	-1.297	5.914	0.000
Empathy	2.319	0.894	3.748	0.674	-1.429	8.414	0.000

Interpretation: Health care service quality gaps are examined by comparing the perception and expectations of patients and the findings are shown in the table below. Patients' perceptions of the service quality provided by private care hospitals differ significantly from what they anticipate, as seen by the consistently low ratings for all five of the study's service quality categories. The null hypothesis is rejected since the p value is less than 0.05, and it may be deduced that there is a discrepancy between the anticipated and perceived quality of health care services.

Table 7. Correlation between service quality dimension and dependent variable

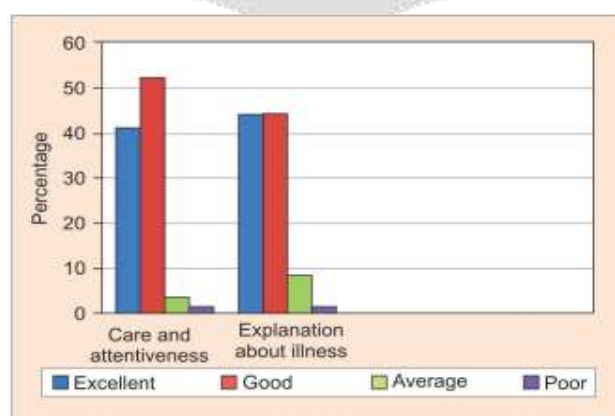
	IV1	IV2	IV3	IV4	IV5	DV
IV1	1	.822**	.859**	.789**	.743**	.857**
IV2		1	.796**	.713**	.672**	.798**
IV3			1	.882**	.808**	.924**
IV4				1	.843**	.934**
IV5					1	.882**
DV						1

** Correlation is significant at the 0.01 level (2-tailed)

Interpretation: Service quality is strongly connected with each of the five independent factors at a 99 percent level of significance; the association can be observed in the following table if you look closely at each of the variables. The Pearson Correlation Coefficient shows a positive correlation between the dependent variable and all five categories of service excellence.

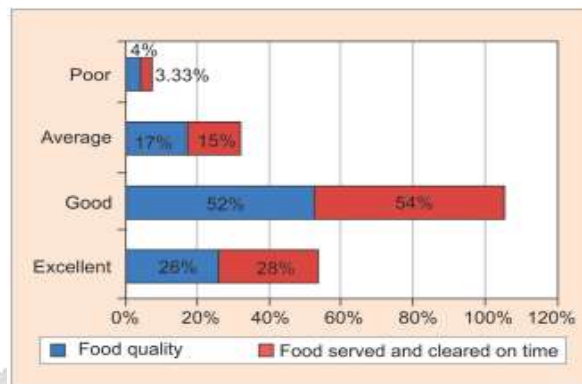
Doctors Care

Nearly 42 percent of patients/attendants rated the doctor's care and attention to detail as outstanding, 53.3 percent rated it as good, and just 1 percent rated it as bad, meaning that 95.3 percent of patients were happy with their treatment (Graph 1). Most people were happy with the doctor's explanation of a medical condition, treatment plan and medication; just 10% were unsatisfied.

**Graph 1: Distribution of patients' satisfaction about doctors' care**

Dietary Services

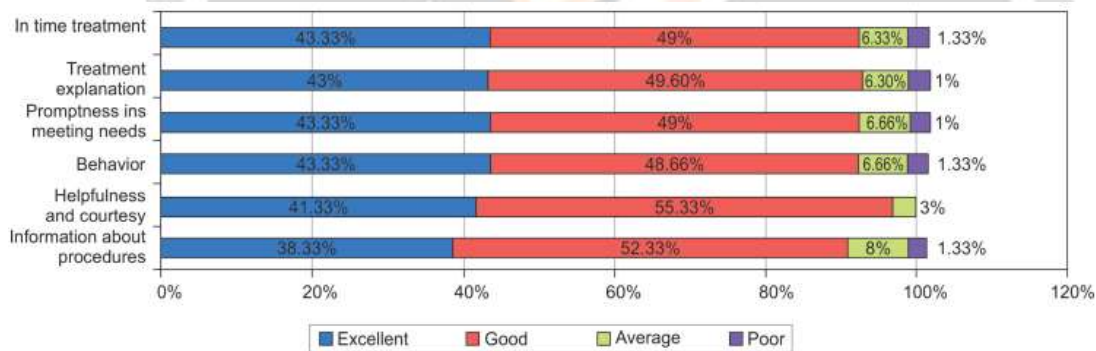
It was considered outstanding by 26% of patients; good by a further 50%; ordinary by the remaining 17%. Only 4% thought it was poor (Graph 2). He was a huge source of dissatisfaction. Patient satisfaction with the hospital's meals was high overall (78%) but low among 21 percent of those who received it (21 percent).



Graph 2: Distribution of patients' satisfaction about dietary services

Nursing Services

The nurses' attitude and demeanour, promptness in addressing their requirements, and explanations of the treatment process and progress were rated as outstanding by 43 percent of patients, good by 49 percent, and ordinary by six percent; just one percent of patients indicated it was terrible (Graph 3). Nursing care was rated as satisfactory by 93% of patients and dissatisfactory by 7% of those polled.



Graph 3: Distribution of patients' satisfaction about nursing services

5. CONCLUSION

The goal of service quality is to produce value for the studied hospital and the key to client pleasure. For this reason, in order for hospitals to attain distinction, they need pay close attention to their patients' impressions of service quality and place it at the top of their list of priorities. Using the SERVQUAL model, we were able to examine the gap between the patient's perception and expectation of quality, and the correlation between the dependent and independent variables was studied. This negative score indicates that patients are receiving less than their expectations from the health service providers. A negative gap score in all five areas indicates that respondents believe the quality of the services they received fell short of their expectations, and this may be true. T tests show that health care professionals have a problem with the overall service quality they give. According to the survey, the quality of healthcare services is a key issue and is strongly connected to the socioeconomic development of the community. As a result, the framework for healthcare services should ensure that the quality of health services is improved through the proper training and development of workers and the maintenance of a better clean and hygienic environment in order to provide clean and safe services that can definitely increase the level of patient satisfaction and reduce the gap between the perception and expectation of patients. 90% of patients said their physicians at the hospital were great, although roughly 9% said they believed the doctors had grown less attentive to their concerns. Empathic care and soft skills should be stressed in the

education of the next generation of physicians. Dietary services have had an average of 17% and a bad response of 14%, respectively. The quality and amount of food, particularly the quality of idly and its presentation, was the second significant disappointment. Patients with diabetes have also expressed concerns about a normal meal being fed to them, which requires constant supervision. Patients want prompt, high-quality medical care, and this can only be provided by managers who guarantee that their employees are well-trained and equipped with the latest technology. In-patient and out-patient data may be explored further to assess the performance of service providers in future studies on various areas of service quality.

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