

MEASUREMENT OF PERCEPTIONS AND EXPECTATIONS OF SERVICE QUALITY IN PUBLIC AND PRIVATE HOSPITALS

Dr.R.KAVITHA, M.Com., M.Phil., Ph.D.*

Abstract

In the present situation, healthcare is very important to each and every people because they have to live without any illness. Treatment cannot be given in a patient's house or in the clinic. This is possible only in a hospital, for it consists of large number of professionally and technically skilled people who apply their knowledge and skill with the help of world-class expertise, advanced sophisticated equipments and appliances. This article examines that the service quality measurement of perceptions and expectations in the two hospitals. SERVQUAL model has been used to measure the service quality which was developed by Parasuraman, Zeithmal and Berry. For this study, two questionnaires were developed, one for measuring the levels of expectations and other for measuring the perceptions of service quality. In these two hospitals, samples of 400 in-patients (each having 200 samples) are selected to measure the patients' perception of service quality based on convenience sampling. The result indicates that the perceived service of the public hospital is much lower than the expected service. But in the case of private hospital, the perceived service quality is much higher than the expected service.

* Assistant Professor, Department of Commerce, Padmavani Arts & Science College for Women, Salem- 11, Tamilnadu.

Introduction

The healthcare sector is facing unparalleled challenges in an increasingly customer oriented environment. A lot of health problems need intensive medical treatment and personal care. Treatment cannot be given in a patient's house or in the clinic. This is possible only in a hospital, for it consists of large number of professionally and technically skilled people who apply their knowledge and skill with the help of world-class expertise, advanced sophisticated equipments and appliances.

Hospital management performs its duties in the organizational setting of the hospital. It utilizes resources, people and technology to perform organizational goals, of which the most important is patient care. In the past, the hospitals were considered alms houses. They were set up as charity institutions specially for the poor and weaker sections of the society.

Scope of the Study

This study is undertaken to measure the quality of healthcare service in the select hospitals. Two hospitals are selected for this study: Sri Gokulam Hospital which is in the Private Sector and Mohan Kumaramangalam Government Medical College Hospital which is a public hospital.

In this study, the SERVQUAL instrument has been specifically adopted to measure service quality using both the gap concept and service quality dimensions. The main aim of the study is to measure the patients' perceptions and expectations of service quality in the two hospitals selected for the study, using the multidimensional, generic, internationally used and accepted market research instrument called SERVQUAL¹. It consists of five dimensions viz., tangibles, reliability, responsiveness, assurance and empathy.

Objectives of Study

The main objective of the study is to measure the level of perceptions and expectations of patients on service quality and to study the extent to which the select hospitals are able to meet the patients' expectations on the service quality dimensions.

Methodology and Tools

This study is an empirical research based on survey method. Data required for this study are both primary and secondary. Primary data relating to patients of the hospital are collected through personal interview with the patients and secondary data relating to the hospitals are collected from the records of the select hospitals. Two hospitals in Salem are purposively selected for the study, i.e., one private hospital and another public hospital. The private hospital is Sri Gokulam hospital (P) Ltd., and the public hospital is Mohan Kumaramangalam Government Medical College Hospital. In these two hospitals, samples of 400 in-patients (each having 200 samples) are selected to measure the patients' perception of service quality based on convenience sampling. To study the extent to which the select hospitals meet the patients' expectations, 't' test is used.

Result Analysis

An attempt is made to study which hospital is able to meet the patients' expectations on the service quality. Student t-statistic is used to find the gap between expectations and perceptions of patients. Between these two, a negative gap indicates that expectations are not met. A zero score indicates patient expectations are met. A positive gap indicates that patient perceptions are much higher than the expected service. t- test is applied based on collection of data of the two hospitals.

Patients' Expected and Perceived Service Quality of the Government Medical College Hospital (Public Hospital)

Table .1 describes the sample size, mean, standard deviation and the standard error relating to the Public hospital dimension-wise. The table 1 also gives the 't' statistic, calculated ratio of the difference between the means of expected service and perceived service divided by the standard error.

TABLE - 1

MEAN SCORES OF EXPECTED SERVICE AND PERCEIVED SERVICE

(PUBLIC HOSPITAL)

Dimensions	Service Quality	Mean Scores	Std. deviation	Std. Error	't' value	df	'p' value	Result
Tangibles	Expectation	19.92	2.272	0.161	11.279	199	0.000	Significant
	Perception	17.65	2.900	0.205				
Reliability	Expectation	24.38	3.105	0.220	7.842	199	0.000	Significant
	Perception	22.30	3.368	0.238				
Responsiveness	Expectation	19.49	2.484	0.176	6.305	199	0.000	Significant
	Perception	18.04	2.715	0.192				
Assurance	Expectation	19.24	2.429	0.172	6.543	199	0.000	Significant
	Perception	17.86	2.831	0.200				
Empathy	Expectation	24.51	3.074	0.217	8.761	199	0.000	Significant
	Perception	22.13	3.393	0.240				
Overall dimensions	Expectation	107.54	9.729	0.688	10.497	199	0.000	Significant
	Perception	97.965	12.277	0.868				

From the table 1, it is found that the mean values of expectations are higher than the perceptions of the patients in the case of all the dimensions and also of overall values of all the dimensions. Further to prove this statistically, standard error and 't' values are calculated for all the dimensions. Since 'p' value is less than 0.01, the null hypothesis is rejected, i.e., there is a significant difference in the mean scores of the expected service and the perceived service with respect to all the dimensions. Hence it can be concluded that the Public hospital has not lived upto the expectations in providing quality healthcare when compared with the actual service that the patients have received from the hospital.

Patient’s Expected and Perceived Service Quality of the Private Hospital

Table 2 reveals mean, standard deviation and standard error for the data collected from the patients of the private hospital. The table also provides ‘t’ statistic, for the mean scores of expected service and perceived service dimension-wise.

TABLE - 2

MEAN SCORES OF EXPECTED SERVICE AND PERCEIVED SERVICE (PRIVATE HOSPITAL)

Dimensions	Service Quality	Mean Scores	Std. deviation	Std. Error	‘t’ value	df	‘p’ value	Result
Tangibles	Expectation	22.27	2.717	0.192	8.455	199	0.000	Significant
	Perception	24.38	2.615	0.185				
Reliability	Expectation	27.47	3.362	0.238	9.002	199	0.000	Significant
	Perception	30.18	2.594	0.183				
Responsiveness	Expectation	21.84	2.924	0.207	7.084	199	0.000	Significant
	Perception	23.71	2.414	0.171				
Assurance	Expectation	24.03	2.095	0.148	9.897	199	0.000	Significant
	Perception	21.63	2.891	0.204				
Empathy	Expectation	27.86	3.336	0.236	8.707	199	0.000	Significant
	Perception	30.30	2.574	0.182				
Overall dimensions	Expectation	123.47	9.617	0.680	8.787	199	0.000	Significant
	Perception	130.18	7.710	0.542				

From the above table, it is interesting to note that the mean values of perceived service are found to be high when compared to their expectations in the case of all dimensions except the Assurance dimension and also in the case of perceptions are higher for the overall values of all the dimensions. This is also proved statistically, since ‘p’ value is less than 0.01 and hence the hypothesis is rejected, i.e., there is significant difference between the mean scores of expected

service and perceived service with respect to all dimensions. Hence, it can be concluded that the actual service is higher than the expected service in the case of the chosen private hospital. It shows that this hospital is able to meet more than what the patients expect from the hospital.

Average Gap Scores of Public and Private Hospitals

The mean gap scores of all the five dimensions are compared between the two hospitals statistically, by using the ‘t’ test to test the hypothesis “There is no significant difference in mean gap scores among the two hospitals” and the results are given in the table 3

TABLE 3
MEAN GAP SCORES OF PUBLIC AND PRIVATE HOSPITALS

Dimensions	Hospital	Mean Scores	Std. deviation	Std. Error	‘t’ value	df	‘p’ value	Result
Tangibles	Public	-2.275	2.842	0.200	13.68	398	0.00	Significant
	Private	2.105	3.520	0.248				
Reliability	Public	-2.085	3.760	0.265	11.93	398	0.00	Significant
	Private	2.705	4.249	0.300				
Responsiveness	Public	-1.455	3.263	0.230	9.48	398	0.00	Significant
	Private	1.875	3.742	0.264				
Assurance	Public	-1.385	2.993	0.211	-3.16	398	0.00	Significant
	Private	-2.405	3.436	0.243				
Empathy	Public	-2.380	3.841	0.271	12.35	398	0.00	Significant
	Private	2.440	3.962	0.280				
Overall dimensions	Public	-9.570	12.892	0.911	13.68	398	0.00	Significant
	Private	6.720	10.815	0.764				

Note: Minus values indicate (P-E)

Table 3 reveals that the mean gap scores differ significantly between the public hospital and private hospital with respect to all the dimensions and also of overall dimensions. These

results show that the private hospital is exceeding its patient expectations by a wider margin than the public hospital. But with respect to the dimension Assurance, both private and public hospitals are not able to meet their patient expectations, i.e., the patients' expectations are higher than the perceived service score. In the case of private sector hospital, it is able to meet significantly the expectations, i.e., patients' perceptions exceed their expectations with respect to all other dimensions. But in the case of public sector hospital the perceived service quality is found to be less than the expectations and hence it can be concluded that the public sector hospital has to improve the service quality according to the patient's expectations. As far as the private sector hospital is concerned, the perceived service is much higher than the expectations of the patients except Assurance dimension. Therefore, the services rendered by the private hospital are exceedingly better than the public hospital.

Under these circumstances, an analysis is also made to study whether the perceptions of the quality of service differ depending on the independent variables such as age, education, gender, location from where the patients come from, occupation, monthly income and nature of ward. In order to find the association between these attributes and the perceptions of quality of service, Chi-square test is employed to test the null hypothesis that

Ho: "There is no significant relationship between personal factors and the perceptions of service quality".

TABLE – 4

ASSOCIATION OF INDEPENDENT VARIABLES AND PERCEPTIONS OF SERVICE - CHI-SQUARE TEST (OVERALL DIMENSIONS) - PUBLIC HOSPITAL

S.No.	Factors	Chi-square value	df	'p' value	Result
1.	Age	6.843	3	0.077	Not Significant
2.	Sex	5.667	1	0.017	Significant
3.	Location	0.481	1	0.488	Not Significant
4.	Education	19.081	4	0.001	Significant
5.	Occupation	18.752	2	0.000	Significant
6.	Monthly Income	14.309	3	0.003	Significant

7.	Nature of ward	8.751	4	0.068	Not Significant
----	----------------	-------	---	-------	-----------------

From the table 4, it is found that the variables sex, education, occupation and monthly income of patients are closely associated with their perceptions of quality service, as their ‘p’ values are less than 0.05. But the factors age, location and nature of ward are not significantly related, as their ‘p’ values are more than 0.05. The result shows that perceptions of quality of service vary between male and female patients, the level of education of the patients, occupation and monthly income of patients. Hence it can be concluded that perceptions differ due to these variables or it can be said the actual service as perceived by the patients varies according to these variables. However, age, location and nature of ward do not differ much on the perceptions of quality of service.

The overall perceptions of all the five dimensions put together are closely associated with sex, education, occupation and monthly income of the patients.

Further, an analysis is also made to study the association between independent variables such as age, education, gender, location, occupation, monthly income and nature of ward and perceptions of service. Chi-square test is applied and the results are shown in the table 5

TABLE - 5

**ASSOCIATION OF INDEPENDENT VARIABLES AND PERCEPTIONS OF SERVICE –
CHI SQUARE TEST (OVERALL DIMENSIONS) – PRIVATE HOSPITAL**

S.No.	Factors	Chi-square value	Df	‘p’ value	Result
1.	Age	2.525	3	0.471	Not Significant
2.	Sex	3.835	1	0.050	Not Significant
3.	Location	0.135	1	0.714	Not Significant
4.	Education	4.714	4	0.318	Not Significant
5.	Occupation	2.790	2	0.248	Not Significant
6.	Monthly Income	4.603	3	0.203	Not Significant
7.	Nature of ward	12.410	4	0.015	Significant

Table 5 shows that the factors age, sex, location, education, occupation and monthly income of patients are not significantly associated with their perceptions of service. That is, a perception of quality of service provided by the hospital does not vary in the case of all personal factors except nature of ward with regard to overall dimensions. But in the case of the variable, nature of ward, the quality of service varies, i.e., it seems that the patients are treated differently according to the wards in which they are admitted.

Findings of the study

In this section, the mean scores of the expected service and the perceived service of the hospitals have been studied with the help of t-test separately for the two hospitals and also comparison is made for the gap scores between the hospitals. Also the association between the perceptions of service quality and the personal factors / independent variables have been studied statistically, by using Chi-square test. It is found that in the case of Public hospital, the perceived service quality is much lower than the expected service and this is confirmed by using 't' statistic. But in the case of private hospital, the perceived service quality is much higher than the expected service. The result shows that the private sector hospital is performing better in providing quality service than the public sector hospital.

The independent personal factors associated with dependent variable, perceived service, reveals that in the case of public hospital, irrespective of the five dimensions selected for the study, sex, education, occupation and monthly income are closely related with the perceptions of the quality of service. But age, location of the patient and the nature of ward are not related with the perceptions of service.

But contrary to the above findings, in the case of private hospital, the opinion of the patients does not differ much in the case of all dimensions except in the case one or two significant relationship with the perceived service. In conclusion, it can be said that the private hospital has been providing same quality service to all the patients irrespective of their personal characteristics, but whereas, this is not in the case of public hospital as the quality of service differ based on education, sex, occupation and monthly income.

Conclusion

The main focus of the study is to understand what patients' expectations are for service quality which can help shape a hospital's health care service delivery to better meet patients' needs and desires. Measurement of patient perceptions of service quality has been made necessary in order to determine the level of service quality delivered by the hospitals under study.

References

1. Bennington.L., and Cummane.J (1998), Measuring Service Quality: A Hybrid Methodology, *Total Quality Management* 9(6), pp.395-405.
2. Parasuraman.A, Zeithaml V.A and Berry L.L (1988) SERVQUAL : a multiple Item scale for measuring customer perceptions of service quality, *Journal of Retailing* 64 : Spring, pp.12-40
3. Parasuraman, A., Zeithaml, V.A and Berry.L.L (1985), "A Conceptual Model of Service Quality and its Implications for future Research", *Journal of Marketing*, Vol-49, Fall, pp-41-50.
4. Williams, C. (1998), Is the SERVQUAL model an appropriate management tool for measuring service delivery quality in the UK leisure industry? *Managing Leisure* 3. pp. 98-110.