STUDY OF SERVICE QUALITY MANAGEMENT WITH SERVQUAL MODEL: AN EMPIRICAL STUDY OF GOVT/NGO'S EYE HOSPITALS IN HARYANA

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ABSTRACT

Customer satisfaction and service quality are often treated together as functions of customer's perceptions and expectations. Research has shown that high service quality contributes significantly to customer satisfaction and customer delight. This study empirically explores the relationship between hospital quality management and service quality performance for a sample of patients of eye care hospitals in Haryana. SERVQUAL model has been adopted to encompass various aspects of service quality. The study has been undertaken to demonstrate the Gaps for measuring patient's perceptions-expectation of eye care services quality in GOVT/NGO's eye hospitals in Haryana. The purpose of the research paper is to provide review of the SERVQUAL research in measurement of eye care service quality, to obtain information about quality parameters of services provided by GOVT/NGO's eye hospitals in Haryana & to find out as to how much these parameters rate are as per the expectations of the patients.

Keywords : Service, Gaps, SERVQUAL, Perceptions, Expectations

INTRODUCTION

Like any country that opens its economy, India has in the last 15years seen much change in the way business and industries as a whole deal with consumer demand and expectation with regard to quality of service and goods being sold - this is especially evident in the eye care sector. There has been a slow but sure shift in the way eye care delivery is being perceived, by both providers and patients. Patients are demanding better quality of eye care delivery both for the in-patient services, outpatient services or even preventive care. Quality is emerging as the single most critical factor for eye care business to survive in the ever expanding and competitive global market place. World class hospitals/eye care organizations gain competitive advantage and greater market shares through extraordinary levels of performance and commitment in providing the kind of quality products and services, demanded by customers cutting across national borders. Corporate are being required to conform to international standards such as ISO 9000 and have to focus their resources to achieve high quality standards in their eye care products and services.

LITERATURE REVIEW

Quality is abstract characteristic that encompasses a variety of more or less physical attributes. Philip Crosby (1979) Quality in healthcare cannot be measured directly but must be judgmentally assessed by considering entity attributes that are more directly perceptible. Quality could in a better way be understood as *Quality is the goodness or excellence of services provided by all the components of the eye care system.*

Quality service is not only a patient weapon in a hospital's competitive arsenal, it is the driving force behind profitability. Hospitals can only become or remain profitable if they first identify the right things and then do them right. Johnson (1988) notes that *hospitals are much more than buildings and machines, they are human organizations meeting human needs, and to remain successful in a competitive eye care market, they must outperform their competitors on the human dimensions.*

There are increasing demands for quality in eye care institutions, and many organizations are realizing that quality is central to differentiating their product and services, lowering costs, and gaining a competitive edge. The experience of other industries has shown us that the key to long term growth, profits, brand value and success may be embedded in the philosophy of "quality first" and the effective management of quality within an organization. Yet the one question that remains unanswered is, what is, quality in eye care and How does a services provider know whether they are providing the best quality of care at an affordable price? At the same time how does a patient/consumer know evaluates he is getting value for money when it comes to treatment and services.

Unlike a manufactured product, where quality can readily be assessed, service quality is an elusive and abstract concept that is difficult to define and measure. Services in healthcare are intangible because it is not possible to count, measure, inventory, test or verify them in advance of sale. Quality assessments of a service are not one-dimensional. The nature of service performance diverges from one transaction to another. This “heterogeneity” can occur because the service is delivered by different physicians, nurses and others to a variety of patients with varying needs. Caretakers provide services differently because of variations in factors, such as their specialized training, experience and individual abilities and personalities. In eye care, production and consumption are inseparable. The services are consumed when they are produced, which makes quality control difficult. This necessitates that marketing and operations functions occur simultaneously. In short, the management of eye care quality services cannot be separated from the management of its provision. The customers usually serve as participants in the service Act.

The ultimate goal of service quality measurement is to assist managers in ensuring service quality and customer satisfaction (Webster, 1988). If service quality is to become the cornerstone of marketing strategy, the marketer must have the means to measure it. Measurement is a necessary step towards devising any action plan. Even as the US is exploring the possibility of six sigma in eye care. India is struggling to identify the "right" model to assess quality. Rating agencies and ISO may be the only markers for assessing quality at present, but every hospital must make conscious efforts to move towards delivering quality eye care. Several theories and instruments (SERVPERF, LibQUAL+, and SERVUSE etc.) have been proposed and have been implemented, as to what quality in eye care pertains to and one of them is SERVQUAL.

SERVQUAL - The yardstick

SERVQUAL was developed in 1985 by the marketing research team of Berry, Parasuraman and Ziethaml and is one of the most widely used instruments to measure service quality (Brown et al., 1996, in Buttle, 1996). SERVQUAL measures the gap between customer's expectations for excellence and their perceptions of actual service delivered. The development of SERVQUAL was a significant contribution made towards the development of a quantitative yardstick for assessing the quality of a firm's service by measuring customers' perceptions of quality. The resulting multiple-item scale for measuring service quality, SERVQUAL, lists five dimensions or determinants of service quality: tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al 1985). SERVQUAL provides a means of measurement for researchers to determine how well service level is delivered and how it matches customer expectations on a consistent basis. SERVQUAL provides a technology for measuring and managing service quality (SQ). Since 1985, when the technology was first published, its innovators Parasuraman, Zeithaml and Berry, have further developed, promulgated and promoted the technology through a series of publications (Parasuraman *et al.*, 1985; 1986; 1988; 1990; 1991a; 1991b; 1993; 1994; Zeithaml *et al.*, 1990; 1991; 1992; 1993).Parasuraman, Zeithaml, and Berry continued their pioneering work in service quality through the introduction of the SERVQUAL instrument in 1988 as a questionnaire to measure consumer perception of service quality. In 1988 work, Parasuraman collapsed components of service quality into five dimensions: **reliability, assurance, tangibles, empathy and responsiveness**.

Parasuraman *et al*. developed a 22-item instrument with which to measure customers' expectations and perceptions (E and P) of the five RATER dimensions. Four or five numbered items are used to measure each dimension. The instrument is administered twice in different forms, first to measure expectations and second to measure perceptions.

Analysis of SERVQUAL data can take several forms: item-by-item analysis (e.g. P1 - E1, P2 - E2); dimension-by-dimension analysis (e.g. (P1 + P2 + P3 + P4/4) - (E1 + E2 + E3 + E4/4), where P1 to P4, and E1 to E4, represent the four perception and expectation statements relating to a single dimension); and computation of the single measure of service quality ((P1 + P2 + P3 ... + P22/22) - (E1 + E2 + E3 + … + E22/22)), the so-called SERVQUAL gap.

A very short and somewhat rude definition is that it is a methodology to measure the gap between customers' expectations and their perceptions or experiences with aspects of a given service. A SERVQUAL study will normally investigate the relationship between users' perception of the quality of a service and their experience of the quality of the given service. The method essentially involves conducting sample survey of customers so that their perceived service needs are understood. For measuring their perception of service quality of the organization in question, customers are asked to answer numerous questions within each dimension that determines:

- The relative importance of each attribute.
- A measurement of performance expectations that would relate to an "Excellent" company.

- A measurement of performance for the company in question.

METHODOLOGY

The present study by providing the Perception-Expectation Gap Score will help hospital in identifying the deficiencies and excesses in quality as regards to various dimensions of quality.

Study Objectives:

- To critically examine the quality parameters of services provided by GOVT/NGO's eye hospitals in Haryana.
- To find out the most responsive factors affecting the perceptions of patients regarding the service components in Eye care hospitals in Haryana.
- To find out as to how much these parameters rate are as per the expectations of the patients.

Assumptions of SERVQUAL Conditions:

- The results of market survey are accurate. The validity of the model is based around the results of empirical studies.
- Customers' needs can be documented & captured & they remain stable during the whole process.

The present study was carried out between January to November, 2010 with some modifications supporting earlier study which was conducted from June to November, 2008 in GOVT/NGO's eye hospitals in Haryana. The hospital is located in a densely populated area and provides both routine and emergency services to a wide section of people. The hospital has good amount of patient turnover and only indoor patients admitted to hospital were taken up for study. Convenience & Judgment sampling was used for sample selection

Sample:

A total of 120 patients were surveyed. In the present study the researcher approached only those prospective respondents who have selected GOVT/NGO's eye hospitals for their eye surgery and also do not had any previous experience related to eye care services offered in GOVT/NGO's eye hospitals in Haryana.

Instrument Used:

This study used the SERVQUAL scale questionnaire designed by Parasuraman et al. (1988) to measure the expected and perceived quality of eye care services provided by GOVT/NGO's eye hospitals in Haryana.

The questionnaire utilized to gather the data comprised of four main parts. Part I dealt with the socio-demographic characteristics of the respondents. Part II consisted of 22 items to measure customers' expectations of hospital services in general while Part III consisted of a corresponding 22-item scale to measure the customers' perceptions of the services actually offered by the hospital under study. The scores for each item ranged from "1" for strongly disagree" to "7" for "strongly agree" on a seven-point Likert scale. In Part IV respondents were required to indicate the importance of each of the five dimensions of service quality, that is tangibles, reliability, responsiveness, assurance and empathy, by allocating a total of 100 points to these dimensions as well as to rank their importance. The items of the scale were pre-tested for wording, layout and comprehension.

Data Analysis Approach:

This study follows closely the steps taken to measure the unweighted average SERVQUAL scores and the weighted average SERVQUAL scored by two other studies (Kaura 1993; Ow 1994). In computing the unweighted average SERVQUAL scores and the weighted average SERVQUAL scores, the 22 items of SERVQUAL (as listed in the Annexure II) in both the expectations and perception statements have been grouped according to the five basic dimensions of tangibles (items 1 to 4), reliability (items 5 to 9), responsiveness (items 10 to 13), assurance (items 14 to 17) and empathy (items 18 to 22). To measure the unweighted average SERVQUAL scores and the weighted average SERVQUAL scores, several steps were taken.

Sample Profile

Out of 120 responses received, 100 (83.33%) were usable responses and of which 50% were males and 50% were females. As per profession, 80% of the surveyed patients belong to service class and 20% belong to business class. As per the age group, 90% surveyed patients belong to 20-40yrs, and 10% belong to >= 60yrs age group. As per the marital status, 90% of the surveyed patients were married, and 10% were unmarried.

SERVQUAL SCORES:

SERVQUAL scores both Un weighted and weighted have been tabulated in Table-1.0. All values are explained by mean.

Table-1.0

SERVQUAL Score in the study group (n=100)	
	MEAN
Unweighted SERVQUAL Score	**0.04**
Weighted SERVQUAL Score	**2.324**

Average Un weighted SERVQUAL Score for the total of 100 respondents was 0.04. It was in positive zone meaning thereby that the respondents' perceptions were more than their expectations. They perceived the services provided to them as of good quality.

When importance weights were also taken into consideration the resultant weighted SEVQUAL Score (2.324) was also positive. In USA-General sample in 1990, East Midlands UK outpatients in 1995 & Vassa Finland outpatients in 1996, Average weighted SERVQUAL score was negative, while it was zero in Scottish-Public Library services in 1995 and was positive in Scottish-Home Help service in 1995 (Dalrymple, 1995). This reaffirmed that in GOVT/NGO's eye hospitals in Haryana are providing the quality eye care treatment to patients.

IMPORTANCE WEIGHTS FOR DIMENSIONS:

Average importance weights were compiled and are tabulated in Table-2.0.

Table-2.0

Dimension wise Importance Weights in total study group					
	Tangibility	Reliability	Responsiveness	Assurance	Empathy
MEAN	18.3	28.4	16.8	25.3	12.2

Reliability (28.4) was allocated maximum weight followed closely by Assurance (25.3). Respondents therefore accorded more importance to reliability & assurance of eye care services. The inherent intangibility of eye care services led the respondents to look for surrogate parameters of quality in reliability & assurance which they rightly ranked higher than other quality dimensions. Tangibility (18.3) ranked third in quality dimensions and was significantly lower than assurance meaning thereby that the study group was ready to compromise on appearance of physical facilities & equipments. Responsiveness (16.8) & Empathy (12.2) dimensions even ranked lower in importance for the respondents.

Comparative Studies Results:

Table 3.0

Importance Weight Comparison					
	Tangibility	**Reliability**	**Responsiveness**	**Assurance**	**Empathy**
Present Study	18.3	28.4	16.8	25.3	12.2
USA-General sample*	11	32	22	19	16
Scottish-Public Lib. Se*	18	23	22	21	17
Scottish-Home Help*	17	20	21	21	21
UK Outpatients*	13	26	21	20	20
Finland Outpatients*	18	21	20	22	19

(* Source: Dalrymple, Donnelly, Wisniewski and Curry, 1995)

The present study findings when compared with the findings of other studies in different countries revealed some interesting facts (See Table 3.0). Reliability was consistently rated as the top dimension of service quality by almost all. While assurance was ranked as second most important dimension in the present study, most of the other studies ranked it as average important dimension.

Table 4.0

Dimension wise Average Gap Score Comparison					
	Tangibility	**Reliability**	**Responsiveness**	**Assurance**	**Empathy**
Present Study	**-0.175**	**0.06**	**-0.375**	**0.15**	**0.54**
USA General sample*	**0.38**	**-1.28**	**-1.16**	**-1.00**	**-1.12**
Scottish Public Lib Se*	**-0.25**	**-0.20**	**0.11**	**0.29**	**0.01**
Scottish Home Help*	**0.56**	**0.44**	**0.59**	**0.47**	**0.44**
UK Outpatients*	**-0.03**	**-0.79**	**-0.29**	**-0.41**	**-0.50**
Finland Outpatients*	**-0.38**	**-0.54**	**-0.39**	**-0.40**	**-0.35**

(* Source: Dalrymple, Donnelly, Wisniewski and Curry, 1995)

Comparison of dimension wise gap score was done with other studies and the results have been presented in table 4.0 above. One can see that in present study at GOVT/NGO's eye hospitals in Haryana, all except responsiveness & tangibility dimensions were accorded positive gap score. In contrast UK-Outpatients & Finland-Outpatients accorded negative gap score for all dimensions of quality. Scottish Home Help respondents were most satisfied over all dimensions of quality and there fore there was positive gap score for all dimensions. Except for tangibility dimension USA-General sample accorded negative Gap score for all quality dimensions. One can have a better impression of the importance weights of different dimensions and dimension wise average gap score comparison by different studies from table 3.0 & table 4.0.

Dimension Wise Gap Scores:

Table 5.0

Dimension wise Unweighted Gap Score in all Patients (n=100)					
	Tangibility	Reliability	Responsiveness	Assurance	Empathy
MEAN	-0.173	0.06	-0.373	0.15	0.54

Table-6.0

Dimension wise Weighted Gap Score in all Patients (n=100)					
	Tangibility	Reliability	Responsiveness	Assurance	Empathy
MEAN	-1.225	5.7	-1.675	1.5	7.32

As an extension of analysis each service quality dimension was separately compiled and analyzed to find the average gap score accorded to them by the study group. Table 5.0 & 6.0 compile the result of this analysis. However one must understand that for all dimensions whether their scores are in positive or negative zones, the perceived value of service quality hadn't always exceeded the initial expectations for all variables under all dimensions. One can observe that respondents were consistently more satisfied with Empathy dimension (Average Unweighted Gap Score of 0.54 & average weighted Gap Score of 7.32) which consistently ranked higher than all other quality dimensions. Assurance (Average Unweighted Gap score of 0.15 & Average Weighted Gap Score of 1.5) ranked second while Reliability (Average Unweighted Gap Score of 0.06 & Average Weighted Gap Score of 5.7) ranked third as dimensions of quality by the study group. It was interesting note that the services being provided were perceived to be better than expectations for three of these dimensions i.e. Reliability, Assurance & Empathy by the study group. The other two dimensions of Tangibility (Average Unweighted Gap Score of -0.173 & Average Weighted Gap Score of -1.225) & Responsiveness (Average Unweighted Gap Score of -0.373 & Average Weighted Gap Score of -1.675) were accorded negative score meaning thereby that the perceptions of the study group fell short of expectations of the respondents over these two dimensions. Table 5.0 & 6.0 clearly depict these trends.

CONCLUSION

The findings of this study have important practical implications to management of quality of eye care services. This study demonstrates the usefulness of the SERVQUAL approach as a measure of service quality. SERVQUAL can highlight areas for specific action and address perceived service shortcomings. Consequently, systematic patient feedback for quality assurance, can shape future service delivery and intervene before possible complaints. The results of the study indicate that the SERVQUAL scale could make a valuable contribution by enhancing the understanding of the perceived quality of eye care services. The measurement scale also serves to identify symptoms and the underlying problems that inhibit the effective provision of quality eye care services.

Once the attributes of eye care services from the patients' perspective are more clearly known and understood, its service providers will be in a better position to anticipate patients' requirements rather than to react to patient's dissatisfaction. The attributes of reliability and assurance have been identified by respondents to be the most important dimensions of service quality. The responsiveness & tangibility dimensions were found to have negative gap (perception minus expectation), implying that patients expectation of these two dimensions of the eye care services are not met by GOVT/NGO's eye hospitals in Haryana. Although these findings cannot be generalized to the overall patient profile GOVT/NGO's eye hospitals in Haryana, should use it as an impetus to assess their services, particularly to study ways of improving on their responsiveness and tangibles dimensions.

The management of GOVT/NGO's eye hospitals in Haryana could start by improving on staff training, especially to train their staff to be more professional and courteous when dealing with patients. The best way is for the management to look at improving on aspects such as improving physical facilities, training of staff and communicating precise information on all activities.

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