



Service Quality Management and Customer Satisfaction - An Empirical Study of Selected Ayurveda Hospitals in Gujarat

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Abstract: *Ayurveda is one of the oldest and famous natural health care systems mostly practicing in south Asian region. It is originated in India and has developed in different countries through religious and cultural background of the society. The main purpose of this study is to examine the impact of the service quality on patient satisfaction in the prominent Ayurvedic Hospitals in Gujarat. The study is carried out as a questionnaire survey and used stratified random sampling method to collect data from 150 patients as respondents. The five dimensional SERVQUAL model proposed by Parasuraman et al. (1985) was employed to measure the service quality dimensions related to the selected Ayurvedic hospitals. The model compares patients' perception and expectation of service received across five dimensions of service quality including reliability, responsiveness, assurance, empathy and tangibility. The results of this study shown that there is no overall significantly different between patients' perception and expectation, overall service quality score is found positive that reveal hospitals are able to service as expected. This study find the patient's largest positive gap between perception and expectation is in terms of reliability while the largest negative gap in relation to the assurance. The findings help to understand the areas where higher authorities of the hospitals have needed to improve.*

Keywords: *Ayurveda hospitals, service quality, SERVQUAL.*

I. INTRODUCTION

Ayurvedic health system is one of the oldest, natural health care systems, originated in India. It has been developed within religious and cultural context of the society. In the early era, this system was widely practiced in the South Asian region including Burma and Sri Lanka. However, during the colonization period, the foreign rulers supported and gave priorities to the Allopathic system of medicine, and at the same time discouraged the development of traditional health care system. As a result, Ayurvedic treatments lost their popularity and gradually the Allopathic system was developed very rapidly. At present, in comparison with the last two decades, Ayurveda has gained its popularity in the service to the western health care demand. Several reasons can be attributed for this improvement in the society. The main reason for this improvement is gaining the patients' satisfaction. Recent researches states that the patients' satisfaction has a positive relationship with quality of service. The role of service quality is widely recognized as being a critical determinant for the success and survival of an organization in today's competitive environment.

Hence, the purpose of this study is to measure service quality of selected hospitals implementing the SERVQUAL model. Five prominent Ayurvedic hospitals in Gujarat are selected to approaches the respondents and obtaining the information. The study discovered the factors which has influence on the service quality and the patients' satisfaction of Ayurvedic medical institutions. This paper is organized as follows. The following section presents a literature review of service quality, particularly in the health care services. In Section 3, the research methodology is described. Research findings are discussed in Section 4. The conclusion and future research are provided in the final section.

II. LITERATURE REVIEW

The research literature on service quality has thrown numerous models by different researchers across the world. Lehtimere and Jukka (1985) present a holistic view to measure, monitor, and operational customer perceptions of service quality in health care organisation. John (1989) opined that there are four dimensions of health care service quality: these are the caring dimension, the access dimension, and the physical environment. Babakus and Glynn (1992) evaluated SERVQUAL for its potential usefulness in a hospital service environment. Sharma and Chahal (1999) identified the need of evaluating the service quality of health care service. Bowers et al., (1994) studied the five common attributes of quality from SERVQUAL model. Parasuraman et al. (1985) outlines the items in SERVQUAL are grouped into five distinct dimensions these are:

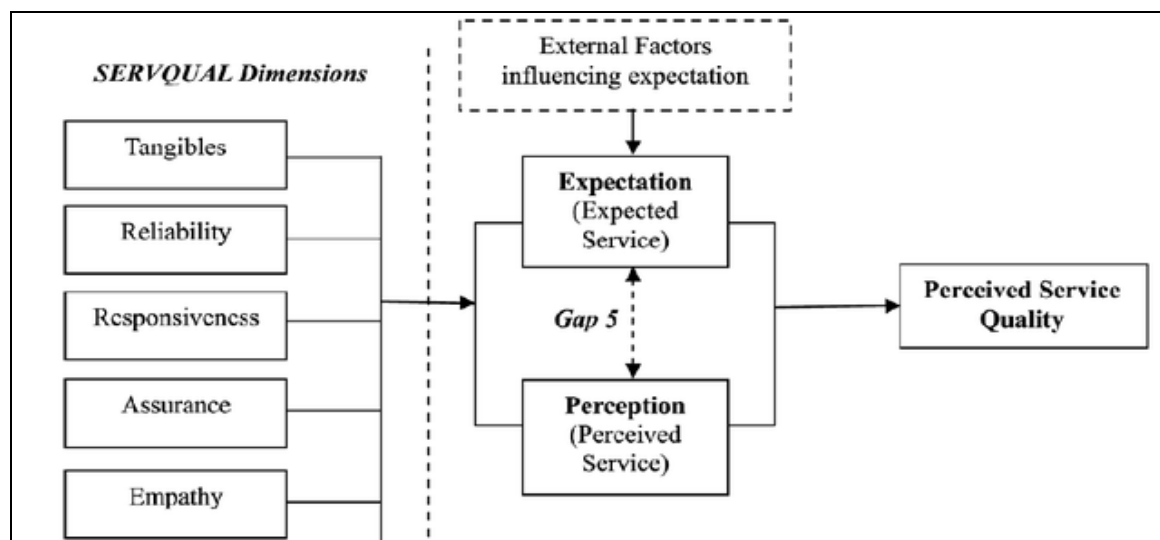
Reliability: Ability to perform the promised service dependably and accurately

Responsiveness: Willingness to help customers and provide prompt service

Assurance: Knowledge and courtesy of employees and their ability

Empathy: Caring, individualized attention the firm provides for its customers

Tangibility: Physical facilities, equipment, and appearance of personnel



Takeuchi and Quelch (1983) assessed the service quality of health care services by six dimensions: a) reliability, b) service quality, c) prestige, d) durability e) punctuality and f) ease of use. Walters (2001) judged the quality of service in health care organization by reliability, availability, credibility, security, competence of staffs, understanding of customer needs, responsiveness to customers, courtesy of staffs, comfort of surroundings, communication between participants and associated goods provided with the service. Griffith and Alexander (2002) compared the service quality rendered by private and public hospitals in UAE. Rohini and Mahadevappa (2006) stratified the hospitals on the basis of specialty and non-specialty; Government-Private; and missionary, ISO-9000 certified and ISO-9000 non-certified. Abu Naser et al., (2006) analyzed the customer expectations and perceptions towards health services through SERVQUAL model especially in Diagnosis services. Considering health care service organization, a number of studies were conducted to measure service quality. Youssef et al. assessed service quality in the National Health Service (NHS), UK hospitals. Lim and Tang evaluated patients' expectations and satisfactions in hospitals in Singapore.

III. RESEARCH METHODOLOGY

Survey Instrument and Data Collection:

Based on the literature review addressed in the previous section, measures of service quality constructs were determined by using the study of Youssef et al. and Lim and Tang. The main reason is that these studies evaluated health care service quality. The final version of survey instrument was modified from the study of Youssef et al. and Lim and Tang. The survey consisted of 24 items that were classified into 5 constructs: tangibility (4 items), reliability (5 items), responsiveness (5 items), assurance (5 items), and empathy (5 items). The survey contains an "expectation" section with 24 statements and a "perception" section consisting of a set of matching statements. A five-point Likert scale was used to ask respondents for scoring (items) ranging from 1 = strongly disagree to 5 = strongly agree. was conducted at five Ayurveda hospitals located in Gujarat. The selected hospitals are also teaching hospitals that providing training in undergraduate and graduate level.

Reliability and Validity of the Survey Instrument:

The internal consistency of measures used in this study is verified by considering Cronbach alpha; a value greater than 0.7 is generally considered acceptable. The Cronbach's alpha of all service dimensions were calculated to test the reliability of the scale used in the study. The result shows that the reliability coefficients were acceptable for all following constructs: tangibility, reliability, responsiveness, assurance and empathy.

Statistical Analysis:

The SERVQUAL scale was used to evaluate hospital service. The obtained data were analyzed with SPSS. Data were tested by using statistical inference; the paired t-test was conducted to determine whether there were differences between the overall means. The SERVQUAL score was calculated to evaluate perceived service and expected service with respect to the following measures: tangibility, reliability, responsiveness, assurance, and empathy. The SERVQUAL scores of each service dimension were obtained by calculating the difference between the perceived and expected service scores.

$$\text{SERVQUAL score} = \text{Perception score} - \text{Expectation score}$$

The positive scores mean that patients' expectations have met and their perceptions of hospital services are good. The negative scores indicate that patients' expectations have not been met and their perceptions of hospital services are poor.

IV. FINDINGS

The results of health care service quality are obtained from the analysis. The overall mean level of patients’ expectation and satisfaction and service gaps in hospital is shown in Table 1. Results show that patients’ perception are higher than patients’ expectation in all dimensions implying that the hospital delivered service as expected. Data are tested with the paired t-test to examine the hypothesis that z values of all the dimensions fell in the critical region (2 tailed sig.). I fail to reject the null hypothesis that there are no differences between the mean. I conclude that there are no differences between patients’ perception and expectation overall. The service level is moderate.

Table 2 depicts service quality gap for each dimension, which is an indicator for service deficiency. The top three service dimensions from patients’ expectation are reliability, tangibility, and assurance. The top three dimensions from patients’ perception are tangibility, reliability, and empathy. These findings suggest that patients strongly expect to receive reliable service from hospital, for example, physician and staffs are professional and competent; services are provided right at the first time; documents are error free and properly recorded; etc. However, patients perceived that they really received good service from the hospitals in term of tangibility, for example, facilities and equipment are well-maintained; patients notice cleanliness and comfortable environment with good directional signs; physicians and staffs are neat and professional in appearance; hospital provides information about services, etc.

Table-1
Overall mean level of patients’ expectations and patients’ satisfaction and service gap in hospitals

Gap 5	N	Mean	Std. Deviation	t	Sig.(2-tailed)
P-E	150	0.0224	0.73024	0.646	0.518
Perception	150	3.6288	0.86461		
Expectation	150	3.6066	0.55115		

Table-2
Mean level of patients’ expectations and patients’ satisfaction and service gaps in hospital with lean implementation

Service Quality Dimension	Mean	Std. Deviation	t	Sig.(2-tailed)	Service Quality Level
TangibilityP - TangibilityE	0.2561	0.72965	7.446	0.000*	High
TangibilityP	3.9183	0.74235			
TangibilityE	3.6622	0.59045			
ReliabilityP - ReliabilityE	0.0662	0.89351	1.572	0.117	Moderate
ReliabilityP	3.7782	0.91888			
ReliabilityE	3.7120	0.58435			
ResponsivenessP - ResponsivenessE	-0.0524	0.83247	-1.336	0.182	Moderate
ResponsivenessP	3.3538	1.07914			
ResponsivenessE	3.4062	0.71892			
AssuranceP - AssuranceE	-0.0960	0.85106	-2.393	0.017*	Low
AssuranceP	3.5036	0.99174			
AssuranceE	3.5996	0.65277			
EmpathyP - EmpathyE	-0.0626	0.78271	-1.698	0.090	Moderate
EmpathyP	3.5902	0.92136			
EmpathyE	3.6529	0.66551			

*Significant level <0.05

The statistical results also indicate that the current service quality level in term of tangibility is high whereas the service quality of the assurance dimension is low. The service quality with regard to reliability, responsiveness, and empathy is considered moderate level. To gain more insight, the gap between perception and expectation was analyzed; results show that the largest gap between patients’ perception and patients’ expectation is in term of tangibility; the gap is significantly different. This means that selected hospitals considerably delivered good service in term of tangibility more than expected. Patients perceived clean equipment and facilities and equipment in the hospital with comfortable environments. Patients also perceived good service in term of reliability. On the contrary, results reported the negative gap in terms of assurance, empathy and responsiveness. Particularly, patients significantly had higher expectation than perception in term of assurance. This provides an important implication for higher authorities in paying attention to these three negative gaps with an aim of improving the quality of service delivered to patients, particularly the assurance dimension. Also, these information help higher authorities make a decision regarding the best use of resources in delivering the highly valued service. It is noted that the statistical result is an initial guideline that help identify the potential service quality improvement areas. Further investigation is, however, suggested to provide management team with constructive information in selecting an appropriate improvement initiative.



V. CONCLUSION

This paper measures service quality of Ayurveda hospitals by using the SERVQUAL model. Five prominent Ayurveda hospitals in Gujarat are explored. The 150 questionnaires survey was conducted. Findings shows that service quality level of this hospital concept is moderate. Overall, patients' perception is slightly higher than patients' expectation; however, the gap between perception and expectation is not significantly different. The highest service quality dimension of patients' expectation is reliability. The highest service quality dimension of patients' perception is tangibility. The key finding also indicates that reliability and tangibility are two most important dimensions of hospital service quality perceived by patients; whereas the assurance was found having the largest negative gap. In summary, this study helps identify the present quality of service provided by selected Ayurveda hospitals. The results provide a managerial implication in continuously improving the service quality thereby enhancing customer satisfaction.

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