



Measuring the Inpatients Satisfaction of Service Quality Dimensions with Reference to Physical Aspects and Affordability in Chennai Hospitals

KEYWORDS

Healthcare services, demographic factors, physical aspects and affordability

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ABSTRACT Healthcare is one of India's largest sectors, in terms of revenue and employment, and one can well witness the sector to expand rapidly. With the fast growing purchasing power, Indian patients are willing to pay more to avail health care services of international standard. In the era of globalization and heightened competition, it has been observed that delivery of quality service is imperative for Indian healthcare providers to satisfy their indoor as well as outdoor patients. In the globalized and liberalized business environment, service sector is encountering stiff competition to meet the requirements of the profitable ways of business. This is reflected in an organization's survival in terms of return on investment, retention of customers, acceptance of service and service qualities, development and augmentation of brand image etc. It appears that the driving force towards success in service business is the delivery of high quality service (Thompson et.al. 1985). Hence, it is essential to be aware of how the patients and patient parties evaluate the quality of health care service.

This paper focuses on the measurement of patient satisfaction in the light of service quality provided by hospitals. The objective of the study is to find out the influence of demographic factors in the physical aspects and affordability of the healthcare services. The primary data is collected from 100 patients through well structured questionnaire and the secondary data from the magazines, books etc.,. The statistical tools used were factors analysis, percentage method and reliability tests using spss.

Introduction:

In India, the service quality of health care is miserable and in general, the health outcome is far from satisfactory (Bajpai and Goyal, 2004). Therefore, government of India has adopted a policy of health care reform having two basic objectives to achieve health securities for all and to provide quality health facilities for all within every district in India (John, 2010). In the health care sector, customer satisfaction is also an important issue as in other service sectors (Shabbir et.al.2010). A health care organization can achieve patient satisfaction by providing quality services; keeping in view patients' expectation and continuous improvement in the health care service (Zineldin, 2006).(1)

Service quality has been revealed as a key factor in search for sustainable competitive advantage, differentiation and excellence in the service sector [6], [7]. Besides, it has been recognized as highly important for satisfying and retaining customers [8]. Service quality has become an important topic in view of its significant relationship to profit, cost saving and market share (Devlin and Dong, 1994). Developing nations have been focusing on relevant infrastructure, technology, disease control, and health outcomes in terms of deaths and disability-adjusted life years, largely ignoring the service quality aspect from the patient's viewpoint. However, researchers opine that real improvement in quality of care cannot occur if the user perception is not involved. Patients' perception is significant as it impacts their 'health-seeking behaviour' including utilization of services, seeks involvement in issues directly related to them, enables the service provider to meet their expectations better, and provides relevant information to the policy makers to improve the quality.(2) Some studies conducted in the recent years have made attempts to develop multi-dimensional scales and measure quality of healthcare services in the developing nations. The current study seeks to assess the perception of patients towards quality of healthcare services in Chennai city of Tamil nadu with special reference to physical aspects and the affordability.

SERVQUAL Model:

The service quality model "SERVQUAL" ranks as the most

important of all service quality models. It is based on the assumption that service quality is a function of differences (gaps) between customers' expectations and perceptions along five quality dimensions: reliability, responsiveness, tangibles, assurance and empathy. In addition, favorable customer perception of service quality will have a positive relationship with overall customer satisfaction and in turn their behavioral intention; repeat purchases and willingness to recommend the service to others (Parasuraman et al. (1985, 1988, 1991)(8).

Physical Environment and Infrastructure:

The dimension assesses the patient's perception of quality with regard to the physical facilities in the hospital; the tangible facets of service facility such as equipment, machinery, signage, employee appearance, etc., or man-made physical environment popularly known as 'services capes'. Further it includes the cleanliness, availability of services, visually appealing. Reference in their SERVQUAL model used tangibles. Tangibles have also been considered by various other researchers as 'physical environment and infrastructure', 'physical surroundings' and 'pleasantness of surroundings' to denote the physical facilities and ambience.

Patient satisfaction a measurement of service quality:

In an increasingly competitive health care market, patient care and satisfaction have become too critical to be left to marketers or operation managers. They are key strategic inputs that have been included in segmentation programs (3) and evaluation of attitudes toward health care systems (4-6). One of the major segments in health care sector is services provided by hospitals.

As a key health care provider, hospitals attract a considerable amount of public resources, private investments, and talented individuals. They in turn attract a lot of good and bad news. It is therefore incumbent on hospital management and marketers to understand how the delivery of quality patient service can positively affect various users of hospital services, their image and profitability (7).

Today, hospitals provide a wide range of services, including room service, nursing service, catering service, and in some cases specialty services, such as wellness and fitness centers, urgent care facilities and childcare. Patient experience of service quality varies across each service a hospital provides. Therefore, a growing body of marketing knowledge specific to hospital services is now available. For example, in a study of 392 patients in two hospitals, it was found that catering, nursing and medical services and discharge processes and procedures had the highest effects on patient satisfaction and it was the overall satisfaction that positively and strongly influences patient loyalty to the health care provider (3). In a similar study (7), it was found that customer satisfaction dimensions of satisfaction with meals, nursing staff and fees all impact positively on both overall satisfaction and loyalty. Finally, data from a stratified sample of 300 patients of emergency room, inpatient and outpatient services revealed that while patient confidence (sense of security, wellbeing and expectations) affects patient satisfaction in all three settings, other service factors, such as treatment quality and physical appearance influence ratings of satisfaction in one or two settings (8). Hence, it is recommended that managers focus on the individual items comprising the factors to generate a checklist of items useful for training as well as managing hospital operations.

Objective of the study:

- To understand the socio-economic factors in hospital services in Chennai.
- To analyze the two major dimension on the service quality with special focus on tangibility and affordability.

Materials and Methods:

Features of Research Design:

- The design was formulated to be a flexible so that changes can be adapted in the execution of the research.
- Care was taken to minimize the bias at every stage since any research work made untrue information would turn out to be unreliable or worthless.
- Effort has been taken to collect as many information as possible through the questionnaire so that elaborate analysis can be carried thereafter. The design was closely linked with the objectives set earlier, so that the essence of the information collected and analyzed does not get diluted.

Sources of Data:

- Primary data required for the study is collected first hand from the patients through well structured questionnaire.
- Secondary data is collected from web, magazines, newspapers etc.,

Sampling Method:

A well structured questionnaire consisting of five point Likert scale was used to collect the data from the patients. A sample of 100 patients was chosen from a hospital in the inpatient department. The samples were selected randomly to ensure unbiased information. Factor analysis, Reliability test and percentage analysis were done for the study.

Data Analysis and Interpretation:

Table 1: Age of the respondent

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20 - 29	23	23.0	23.0	23.0
30-39	30	30.0	30.0	53.0
40-49	26	26.0	26.0	79.0
50-59	7	7.0	7.0	86.0
60 & above	14	14.0	14.0	100.0
Total	100	100.0	100.0	

The above table depicts that 30% of the respondent are from the age group 30 to 39 years and only 7% of the respondents

are from the age group 50-59 years.

Table 2: Educational qualification of the respondent

Education qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Valid schooling	12	12.0	12.0	12.0
graduate	58	58.0	58.0	70.0
post graduate and above	23	23.0	23.0	93.0
others	7	7.0	7.0	100.0
Total	100	100.0	100.0	

From the above table it is inferred that 58% of the respondents are graduates and only 7% of the respondents have no educational background.

Table 3: Employment particular of the respondent

Employment particular	Frequency	Percent	Valid Percent	Cumulative Percent
Valid service industry	16	16.0	16.0	16.0
self employed	32	32.0	32.0	48.0
Government	10	10.0	10.0	58.0
manufacturing	7	7.0	7.0	65.0
retired/students	9	9.0	9.0	74.0
others	26	26.0	26.0	100.0
Total	100	100.0	100.0	

From the above table it is inferred that 32% of the respondents are self employed and 7% of the respondents are from manufacturing industry.

Table 4: Occupation particulars of the respondents

Occupation particulars	Frequency	Percent	Valid Percent	Cumulative Percent
higher managerial admin or professional	6	6.0	6.0	6.0
middle/senior mgt	23	23.0	23.0	29.0
own business	23	23.0	23.0	52.0
Junior mgt, supervisor, secretarial and clerical	5	5.0	5.0	57.0
Manual	6	6.0	6.0	63.0
retired/students	9	9.0	9.0	72.0
Others	28	28.0	28.0	100.0
Total	100	100.0	100.0	

From the above table it is clear that 23% of the respondents are doing either business or occupying good position as a middle /senior management in private sector.5% of the respondents are from the junior level management.

Table 5: Family Income per month of the respondents

Family income	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <50,000	7	7.0	7.0	7.0
50,000-1,00,000	3	3.0	3.0	10.0
1,00,000-1,50,000	12	12.0	12.0	22.0
1,50,000-2,00,000	11	11.0	11.0	33.0
2,00,000-3,00,000	32	32.0	32.0	65.0
>3,00,000	35	35.0	35.0	100.0
Total	100	100.0	100.0	

The above table depicts that 35% of the respondents have a family income more than 3, 00,000 per month and 3% of the respondents have their family income as 50,000 to 1, 00,000 per month.

Table 6: Marital status of the respondents

Marital status	Frequency	Percent	Valid Percent	Cumulative Percent
Valid married	55	55.0	55.0	55.0
unmarried	36	36.0	36.0	91.0
widower	9	9.0	9.0	100.0
Total	100	100.0	100.0	

From the above table it is inferred that 55% of the respondent-

ents are married, 36% of the respondents are unmarried and 9% of the respondents are widower.

Table 7: Inpatient service received

Inpatient service received	Frequency	Percent	Valid Percent	Cumulative Percent
Valid gen surgery	17	17.0	17.0	17.0
cardiology	12	12.0	12.0	29.0
chemotherapy	6	6.0	6.0	35.0
urology	4	4.0	4.0	39.0
cosmetic surgery	2	2.0	2.0	41.0
dialysis	3	3.0	3.0	44.0
gyneac	22	22.0	22.0	66.0
ent	5	5.0	5.0	71.0
ortho	12	12.0	12.0	83.0
gastro	2	2.0	2.0	85.0
derma	3	3.0	3.0	88.0
others	12	12.0	12.0	100.0
Total	100	100.0	100.0	

From the above table it is inferred that 22% of the respondents received gynecology service from the hospital and 2% of the respondent received cosmetic surgery and gastrointestinal treatment from the hospital.

Table 8: Mode of payment

Mode of payment	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Cash	18	18.0	18.0	18.0
Card	24	24.0	24.0	42.0
Insurance	58	58.0	58.0	100.0
Total	100	100.0	100.0	

The above table depicts that 58% of the respondents used insurance policy for the treatment and 18% of the respondents used cash for their treatment.

Table 9: Type of the room

Type of the room	Frequency	Percent	Valid Percent	Cumulative Percent
Valid gen ward	37	37.0	37.0	37.0
non a/c room	2	2.0	2.0	39.0
a/c room	50	50.0	50.0	89.0
Deluxe room	11	11.0	11.0	100.0
Total	100	100.0	100.0	

From the above table it is inferred that 50% of the respondents used air conditioned room 37% of the respondents used general ward.

Table 10: Reliability analysis table for servqual dimensions

TANGLIBILITY/AFFORDABILITY	NO. OF ITEMS	CRONBACH'S ALPHA
Physical aspects	7	.661
Room	5	.708
Food	4	.603
Cleanliness/Maintenance	4	.759
Affordability	5	.891

The above reliability table depicts that the cronbach alpha value for the physical aspects is 0.610, room is 0.816, food is 0.763, cleanliness is 0.759 and affordability has the high reliability score as 0.891.

Factor Analysis for the Serve Qual on the major dimensions like Physical Aspects and Affordability

The KMO and Bartlett test of sphericity indicates that the data is suitable for factor analysis. The KMO measures the sampling adequacy, which should be greater than 0.5 for a satisfactory factor analysis to proceed. Looking at Table 11 & 12, the KMO measure is 0.649 and 0.826. From the same table, we can see that the Bartlett's test of sphericity is significant. That is, its associated probability is less than 0.01. In fact, it is actually 0.000. This means that the correlation matrix is not an identity matrix. The above facts indicate that the data collected on service quality is suitable for factor analysis.

Table 11: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.649
Bartlett's Test of Sphericity	Approx. Chi-Square	1071.767
	df	300
	Sig.	.000

Table 12: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.826
Bartlett's Test of Sphericity	Approx. Chi-Square	289.274
	df	10
	Sig.	.000

Discussions:

Measuring patient satisfaction has many purposes, but there are three prominent reasons to do so (13). Such interviews help to evaluate health care services from the patient's point of view, facilitate the identification of problem areas, and help generate ideas towards resolving these problems. This study is part of the main study. The result of this study indicates that most of the patients are satisfied with the cost and the physical aspects of the private hospital in Chennai with 0.826 factor value.

The common complaint made by the patient was the cost is little high when compared to other hospital but the cleanliness and the tangibles are very good. Most of the patients admitted in to the hospital were of the age group between 30 to 39 years (Table 1) are married (Table 6) and admitted in the department of gynecology (Table 7). Most of the patients (58%) who are admitted to the hospital was having insurance (Table 8) and (Table 5) are having monthly family income of more than 3,00,000 lakh per month (35%). Maximum number of the patients (50%) used air-conditioned room and 37% of the patient used general ward. 58% of the patients are graduates and 23% of the patients are post graduates. From the Table 10 (Reliability test) it is clear that the questionnaire was understood by the patients.

Recommendations and Conclusion:

This study reveals that patients visiting the private corporate hospitals are of higher income group and are seeking good physical environment and cleanliness. They are educated and ready to pay more for good care. Some of the patients were not satisfied with the affordability factor which they felt it was too high. A specific recommendation relates to the need for the study to be conducted in other dimensions of the servqual technique, and then the quality of the healthcare services can also be included in future study.

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