

# A study on Service quality and customer satisfaction of selected Private hospitals of Vadodara City

**Dr. Darshana R. Dave**

Professor, G H Patel Post graduate Institute  
of Business Management, Sardar Patel University,  
VallabhVidyanagar.

**Reena Dave**

Asst. Professor, SEMCOM, Sardar  
Patel University, VallabhVidyanagar.

## **Abstract**

The health care sector of any country depends on socio economic development and the government's priority for the same. Since India has followed the mixed economy the health care sector also has mixed participation. The house hold spending on private healthcare is more than on public spending. Gujarat is also growing fast in economic development. Due to increased competition, service quality is becoming very important. The research study has been conducted to find effect of service quality on patients' satisfaction and customer loyalty in private hospitals of Vadodara City.

## **Keywords:**

Service quality, patient satisfaction, hospital services.

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## **Introduction**

The provision of medical care varies across countries and the nature of such provisioning is determined by the socio-economic and political forces in a given society. Although there is great variety in provisioning, broadly there are three major types. First, there are countries where the state plays a central role in the finance, provision and administration of services but at the same time private interests in the form of individual practice, hospitals and other supportive services coexist. Second, there are countries where the state is the sole provider of medical care and no private interests are allowed. Third, there are countries which rely largely on the market for the provisioning of services.

In the aftermath of the Second World War the general consensus in Europe as well as in the newly independent states of Africa and Asia was in favor of a planned economic development. In developing countries on the other hand, the degree to which the state has been involved in the provision of health services has varied somewhat, but the support for universal coverage has been high on the popular agenda. This is related to the fact that in some countries of south Asia (Sri Lanka and India) the initial years of independence witnessed health services taking a large share of planned outlays for investment in development.

## **Healthcare in India**

Over the last five decades several committees have been set up by the government to review various aspects of health services development in the country. Prominent among these were the National Planning (Sokhey) Subcommittee of the National Planning Committee (1948) and the Health Survey and Development (Bhore) Committee (1946) which provided the blueprint for

development of health services in independent India.

India's healthcare system rests on a primary healthcare system that is grossly inadequate and falls woefully short of what it should be to ensure that our people have access to at least basic healthcare. According to the Economic Survey 2009-10, only 13 per cent of the rural population has access to a primary healthcare center with 33 per cent having access to a sub-center, 9.6 per cent to a hospital and 28.3 per cent to a dispensary or clinic. India has a rudimentary network of public hospitals – there was a shortage of 4,504 primary health centers and 2,135 community health centers in 2009.

India also carries the world's largest burden of maternal, newborn and child deaths. At the beginning of this Millennium in year 2000, 189 countries and 23 international health agencies had pledged to reduce child under-5 mortality by two-third (Millennium Development Goals 4) and to reduce maternity mortality by three-fourths (Millennium Development Goal 5) by 2015.

### Health Profile of Gujarat

Gujarat state, situated on the west coast of India, accounts for 6% of the area of the country and 5% (51 million) of the population of India making it rank tenth in the country. Gujarat has 27 districts subdivided into 226 blocks, 18,618 villages, and 242 towns. The decadal population growth rate (1991-2001) of the state has been 22.6%, which is higher than that of India (21.5%). Gujarat is one of the most urbanized states in India, with 37% urban population. Gujarat has been ranked third in the country in terms of growth during the 10th five year plan (2002-2007). The state has registered an overall Gross State Domestic Product (GSDP) growth rate of 12.99 percent. Gujarat has remained among the top three of the 15 largest states in India in attracting industrial investments all through the 90s and the early part of this decade. Based on the wealth index, the state of Gujarat is wealthier than the nation as a whole. Almost one-third of Gujarat's households (56% of urban households and 15% of rural households) are in the highest wealth quintile, compared to one-fifth of households in India. Only 7 percent of households in Gujarat (1% of urban households and 12% of rural households) are in the lowest wealth quintile.

### Literature Review

The structure of the health care system in India is complex and includes various types of providers. These providers practice different systems of medicines and facilities. The providers and facilities in India can be broadly classified by using three dimensions: ownership styles (public, private not-for-profit, private for-profit and private informal); systems of medicines (allopathic, homeopathic and traditional); and types of facilities (hospitals, dispensaries and clinics). These dimensions are interdependent and overlapping (Bhat, 1993).

This increasing importance has raised requirements for health care marketing. According to American Marketing Association "Marketing is an organizational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationship in ways that benefits the organization and its stake holders (Kotler Philip, Sholawitz Joel et al, 2008)

**Kenneth E. Covinsky, and Gary E. Rosenthal, et al. (1999)** interviewed patients at admission and discharge to obtain two measures of health status. At discharge, they also administered

a 5-item patient satisfaction questionnaire. They assessed the relation between changes in health status and patient satisfaction. In two sets of analyses, that controlled for either admission or discharge health status. They found that Patients with similar discharge health status had similar satisfaction regardless of whether that discharge health status represents stable health, improvement, or a decline in health status. The previously described positive association between patient satisfaction and health status more likely represents a tendency of healthier patients to report greater satisfaction with health care. They suggested that changes in health status and patient satisfaction were measuring different domains of hospital outcomes and quality.

**Alaloola (2008)** conducted research survey to find Patient satisfaction in a Riyadh Tertiary Care Centre. There was a significant satisfaction with room comfort), room temperature, room call button system, room cleanliness and respectful staff. Patients were significantly dissatisfied with phlebotomists not introducing themselves, not explaining procedures and physicians not introducing themselves. **Seetharaman Hariharan, Prasanta Kumar Dey (2010)** introduced a quality management framework by combining cause and effect diagram and logical framework. An intensive care unit was identified for the study. They found that patients improved infrastructure, state-of-the-art equipment, well maintained facilities, IT-based communication, motivated doctors, nurses and support staff, improved patient care and improved drug availability were considered the main project outputs for improving performance. The proposed framework was used as a continuous quality improvement tool, providing a planning, implementing, monitoring and evaluating framework for the quality improvement measures on a sustainable basis.

**Ritu Narang (2010)** applied 20-item scale and distributed to 500 users of health care centers comprising a tertiary health center, a state medical university and two missionary hospitals in Lucknow, India. The scale was found to be reliable to a great extent with an overall Cronbach alpha value of 0.74. "Health personnel and practices" and "health care delivery" were found to be statistically significant in impacting the perception. Respondents were relatively less positive on items related to "access to services" and "adequacy of doctors for women". The tertiary health center was rated poorer than the medical university and missionary hospitals.. Policy makers need to consider the requirements and opinions of patients to effect substantial change and significant improvement in the quality of their health care services for better and increased utilization of their services. The access to health care services requires immediate and urgent attention from the policy makers. In addition, they need to improve upon the number of rooms, reception and follow-up facility along with availability of drugs and doctors for women. This tool may be applied for qualitative assessment of the services of health care programmes as well as health care centres of India.

**Sandip Anand (2010)** carried out the follow-up survey in Tamil Nadu, Maharashtra, Bihar and Jharkhand. Dimensions include: service proximity, doctor availability, waiting time, medicines, facility cleanliness, dignified treatment, privacy, service affordability and treatment effectiveness. Findings indicated that doctor availability, waiting time, cleanliness, privacy and affordability at private health facilities enhance the probability that a health facility will be used for any reproductive health purpose.

Their findings indicated that doctor availability, waiting time, cleanliness, privacy and affordability enhance private reproductive health service use at the combined four state level. At the combined states, medicine availability and treatment effectiveness at public health facilities enhances use. It appeared from their findings that service quality norms were not properly established in any Indian public or private systems.

**HavvaÇaha (2010)** found Patients preferred private hospitals due to their belief that private hospitals provide qualitative health service in Turkey. But this did not mean that they encounter sufficient services. On the contrary, a large number of patients complain about services given by private hospitals. The complaints were mainly about the length of the time that they wait for treatment and the consultation time given to them. As a result, this study indicated that satisfaction of the patients seem to be the most important factor for the private health care providers.

The literature review suggests that a study of perception of patients towards service quality of hospital needs to be addressed with specific reference to private hospitals.

#### **Research Methodology:**

The study was carried out keeping in mind following objectives:

- To analyze factors affecting selection of hospitals by consumers.
- To examine impact of perceived service quality on consumer satisfaction.
- To establish relationship between satisfaction and patients loyalty.

#### **Hypotheses: Following hypotheses were put to empirical testing for the given research:**

- (1) Service quality and consumer satisfaction positively influence the loyalty of clients.
- (2) Reputation of doctor influence significantly in selecting hospitals.
- (3) There is no difference between patients' expectation and perceptions of hospital performance.
- (4) There is no difference between the hospital performance perception of male and female patients.
- (5) There is no association between the expectation of patients and their education.

#### **Population of the study**

The population considered for present study is all persons of Vadodara who was admitted in the private hospitals or those who had taken treatment from private hospitals. The sample was drawn from Vadodara, chosen carefully for their widely accepted characteristics.

#### **Sample size**

From the city of Vadodara one hundred (100) respondents were selected using “non probability convenience sampling and their interviews were taken.

#### **Data Collection Method**

In present research, personal survey method was used for data collection.

#### **Data Collection Instrument**

The data collection instrument used in this study was structured, closed ended questionnaire. The questionnaire also contained questions to measure service quality in private hospitals. Minor modifications were made to the wording of the 23 SERVQUAL items and four items relating to access and credibility taken from Parasuraman, Zeithmal and Berry (1985) were added. Here twenty three (23) statements were asked to respondents, first to know their expectation and then their perception. The statements were divided into five dimensions of service quality which are “Tangibility”, “Reliability”, “Responsiveness”, “Assurance” and “Empathy”.

#### **Tools and Procedure for Analysis:-**

A service quality measurement model that has been extensively applied, is the SERVQUAL model developed by Parasuraman.

The collected data (response of the selected respondents) were finally entered in Micro Soft Excel and data sheet (master chart) was made in SPSS. Statistical tests / techniques applied for the study are Uni – Variate Analysis in form of frequency tables, Bi – Variate analysis using Cross – tabulation with Chi-Square test, Paired t-test, and ANOVA one way classification.

#### **Data analysis and findings:**

Consumer's perception is the main indicator of quality in health care service. Quality of health care is the most optimal degree of health outcomes by delivery of cost effective and efficient professional health services to people. The basic objective of the present study is to focus the service quality perception of consumers from health care service provider. The primary data are collected from selected private hospitals of Vadodara city.

As far as gender proportion is concerned, it was 71 per cent male and 29 per cent female. From the selected respondents, 72 per cent were married and 28 per cent were unmarried respondents. During the data collection, the respondents were asked for their educational qualification. In the study 59 per cent were graduates, 39 per cent were post graduates, 9 per cent were higher secondary passed, and 1 per cent had professional degree. Out of the total sample 20 per cent of respondents were employees of private firm / company, 19 per cent were farmers, 15 per cent were businessmen, and remaining 12 per cent female respondents were house wives.

It is important to find the decision makers for hospital services. Respondents were asked who influences much on hospital selection decision. It is found that 37 per cent respondents said that family as important decision maker followed by self 33 per cent. Whereas 22 per cent said it was their joint decision for hospital selection.

To find major source of information for healthcare service providers, respondents were asked on sources of information about hospital. Family is found as major source of information (41 per cent) followed by friends (37 per cent) and 13 per cent respondents said that they came to know about hospital through advertisements (*Appendix table -2*).

To analyze and understand the criteria for hospital selection, respondents of Vadodara city were asked to rate the criteria for selection of hospitals on a five point scale from least preferred to highly preferred. It was found that 92 per cent of respondents had given first preference to doctors' qualification followed by experience of doctors (91 per cent). It was also found that reputation of hospitals was influencing factor along with extra facilities (89 per cent) available in the hospital. Respondents believed that hospitals should be situated in nearby area /location (88 per cent).

Healthcare service providers are facing problem of patients' loyalty due to increased competition, access to information technology and many more reasons. Respondents were asked about their future choice of private hospital. Out of total respondents 61 per cent said they would like to come again to the same hospital in future. Whereas 30 per cent said they would not like to come again to the same hospital followed by 9 per cent remaining neutral. 60 per cent of total respondents agreed that they would never switch over to other hospitals. 31 per cent of them remained indifferent for the same and 13 per cent remained silent. When respondents were asked about their willingness to recommend others, 59 per cent of total number of respondents agreed to recommend the hospital to others, whereas 28 per cent showed negative opinion followed by 13 per cent who did not respond to the question. To find the most preferred service of hospitals respondents were asked to give weightage to services. Chi square test is applied to check association between need for the best treatment and gender. The study revealed that there was no significant difference between the male and female for the desire of best treatment. Respondents between the age group between 31 to 40 years had given highest importance to cleanliness and hygiene. It was found that young patients were more quality conscious than older patients. ANOVA One way test is applied to check age wise gap between expectation and perception. It was found that there was no significant difference between different age groups and patients' expectation and perception, as  $p$ -value  $> 0.001$  (Appendix table- 3). The researcher also tried to establish the relationship between education and expectation and perception. As the  $p$ -value is less than 0.001, it can be inferred that there is no significant difference in gap between expectation and perception of respondents with different educational qualifications (Appendix Table-4). It was also found that 26 per cent of total respondents were satisfied with hospitals services and remaining 76 per cent were dissatisfied with hospitals services (Appendix Table-5).

To establish relationship between patients' satisfaction and loyalty, chi square test was applied, it was found that there is significant association between the feelings of satisfaction / dissatisfaction and willingness to come again to the hospital ( $p$ -value  $< 0.05$ ). It was also found that there is significant association between the satisfaction/dissatisfaction levels and their willingness to never switch over to other hospital ( $p$ -value  $< 0.05$ ). The study also revealed that there is significant association between the satisfaction/dissatisfaction levels and their tendency to recommend the hospital to others ( $p$ -value  $< 0.05$ ).

### Conclusions and Recommendations

In order to understand the needs and satisfaction of consumers of healthcare services an empirical study was undertaken by the researcher. The study on service quality and customer satisfaction

is based on primary data which are collected from indoor and outdoor patients of private hospitals of Vadodara city of Gujarat. Various patients from various disciplines i.e. general medicine, pediatrics, general surgery, gynecology and orthopedics etc. were surveyed with the help of a structured questionnaire.

In case of health care services still word of mouth i.e. information regarding hospitals and services from family play an important role. It was found that respondents had given more preference to doctors' qualification and experience of doctors. It was also found that reputation of hospitals is influencing factor along with extra facilities, available in the hospital. Respondents believed that hospitals should be situated in nearby area /location. There was significant influence of education and income of the respondents on patients' loyalty.

Health care service providers should disseminate correct information from time to time as more quality information leads to patient awareness and satisfaction. The hospitals should have convenient operating hours and nurses should give individual attention to patients. Especially this problem is found in private and trust run hospitals. The study revealed that to improve patient satisfaction, healthcare service providers must focus on quality improvement strategies.

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### Appendix

Table – 1: Factors influencing choice of hospitals

Decision makers	Frequency	Percent	Cumulative Percent
Self	33	33.0	33.0
Spouse	8	8.0	41.0
Joint	22	22.0	63.0
Family	37	37.0	100.0
Total	100	100.0	

Table – 2: Source of information about the hospital

	Frequency	Percent	Cumulative Percent
Advertisement	13	13.0	13.0
Family	41	41.0	54.0
Friend	37	37.0	91.0
Family Doctor	5	5.0	96.0
Any other	4	4.0	100.0
Total	100	100.0	

Table-3 :Descriptive Statistics for Gap Between EXP-PER (Age group as independent Variable)

Age	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
21-30	47	5.7660	8.22301	1.19945	3.3516	8.1803	-5.00	23.00
31-40	35	4.0286	7.40225	1.25121	1.4858	6.5713	-4.00	22.00
41-50	13	3.0769	7.00549	1.94297	-1.1565	7.3103	-7.00	15.00
51-60	5	4.6000	4.44972	1.98997	-.9251	10.1251	.00	10.00
Total	100	4.7500	7.61760	.76176	3.2385	6.2615	-7.00	23.00

ANOVA test

	Sum of Squares	Df	Mean Square	F	p-value
Between Groups	103.230	3	34.410	.586	.626
Within Groups	5641.520	96	58.766		
Total	5744.750	99			

Table-4 :Descriptive Statistics for Gap Between EXP-PER (Age group as independent Variable)

Descriptive Statistics (Education as independent variable)								
Education	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
HSC	9	3.7778	8.62812	2.87604	-2.8544	10.4099	-7.00	16.00
Graduate	59	4.8136	7.32844	.95408	2.9038	6.7234	-3.00	23.00
Post Graduate	31	4.9677	8.20765	1.47414	1.9571	7.9783	-5.00	22.00
Professional Degree	1	3.0000					3.00	3.00
Total	100	4.7500	7.61760	.76176	3.2385	6.2615	-7.00	23.00

ANOVA test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.278	3	4.426	.074	.974
Within Groups	5731.472	96	59.703		
Total	5744.750	99			

Table-5 : Level of satisfaction among respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Dissatisfied	76	76.0	76.0	76.0
Satisfied	24	24.0	24.0	100.0
Total	100	100.0	100.0	