



Journal Homepage: - [www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/13135

DOI URL: <http://dx.doi.org/10.21474/IJAR01/13135>



### RESEARCH ARTICLE

#### PATIENT'S PERCEPTION OF SERVICE QUALITY TOWARDS IN HOSPITALS OF DAKSHINA KANNADA DISTRICT OF KARNATAKA

Zoheb Ali K.<sup>1</sup> and Dr. Rashmi Kodikal<sup>2</sup>

1. Asst.Proffesor Department of Management Studies P A College of Engineering Mangalore, Karnataka.
2. Proffesor P A College of engineering Mangalore, Karnataka.

#### Manuscript Info

##### Manuscript History

Received: 10 May 2021

Final Accepted: 14 June 2021

Published: July 2021

##### Key words:-

Customer Satisfaction, Hospitals,  
Patients, Customer Services Quality,  
India

#### Abstract

**Purpose** – The goal of this study is to break down hospital service quality (SQ) into its different components from the patient's point of view in India's healthcare organizations.

**Design/methodology/approach** – To acquire patient perceptions, the study uses a questionnaire-survey methodology. Statistical approaches such as correlation and multiple regressions were used to analyse the data collected..

**Findings** – Because patients are unable to completely assess the technical quality of healthcare treatments, they prioritise trustworthiness and safety. The study also found that in order to get a holistic view of their offerings, hospital service providers must first understand the demands of patients..

**Research limitations/implications** – Due to a low response rate and other operational constraints, the study only recorded the perceptions of service receivers – patients – and the sample size of the study – 200 patients and the study's results are dependent on the nature and number of respondents.

**Practical implications** – By comparing the mean values of the categories of Service quality, hospital administrators can benchmark their facilities against those of their competitors. The study also allows for a comparison of government and private hospital performance in terms of services provided.

Copy Right, IJAR, 2021.. All rights reserved.

#### Introduction:-

India has a comprehensive multi-payer medical system that is financed by a network of government and commercial health insurances, as well as a portion of public hospitals that is virtually totally funded by taxes. Except for small, often symbolic co-payments in some procedures, the public hospital system is virtually free for all Indian residents. On the federal level, the Government of India introduced Ayushman Bharat, a national health insurance scheme, in 2018. This aimed to cover the bottom half of the country's population (500 million people) who work in the unorganised sector (businesses with fewer than ten employees) and provide them with free treatment at both public and private hospitals.

People who work inside the organised sector (companies with more than 10 employees) and earn a monthly income of up to Rs 21000 are protected by the Employees' State Insurance social insurance scheme, which pays for their

**Corresponding Author:- Zoheb Ali K**

Address:- Asst.Proffesor Department of Management Studies P A College of Engineering  
Mangalore, Karnataka.

health coverage (along with pension and unemployment benefits) in both public and private hospitals. Those earning more than that amount are covered by their jobs through a variety of public and commercial insurance providers. By 2022, 300 million Indians will be insured by group or individual insurance policies purchased from one of the public or private insurance organisations by their employers. Unemployed people who do not have health insurance are covered by several state funding systems for emergency hospitalisation if they cannot afford it. In 2019, the government's total net healthcare spending was \$36 billion, or 1.23 percent of GDP. The public hospital system has been wholly funded by general taxes since the country's independence. The Institute of Medicine (IOM) defines health-care quality as "the extent to which medical services for people and populations increase the chances of desired patient outcomes while remaining consistent with current professional knowledge." Technical care is defined as the application of medical knowledge and technology in such a way that the advantages to health are maximized while the hazards are reduced. There are a number of metrics or indicators that can be used to assess quality. Service quality is the most important parameter to judge the patient perspective of quality of health care provided.

### **Review of Literature:-**

The quality of healthcare services can be divided into two categories: technical aspects of quality and functional aspects of quality (Donabedian, 1988)(1). In the health industry, technical aspects is characterised primarily by the technical accuracy of diagnosis and treatments, as well as compliance to technical specifications. The way a healthcare service is offered to patients is referred to as functional quality. "Hospitals that fail to comprehend the importance of achieving client happiness may be inviting destruction," wrote Andaleeb (1998)(2). Studies have highlighted the benefits of consumers in health sector because they are involved in both the consumption and production of services. Furthermore, when the paradigm shifts from products and services to experience environments, consumers and businesses collaborate to generate value for individual customers. As a result, it is critical to comprehend client impressions of healthcare services.

Using 20-item measures, Haddad, Fournier, and Potvin (1998)(3) calculated the laymen's impression of the frontline health institutions in various countries. A total of 241 Guineans participated in the study. The developed scale value was found to be appropriate. Sohail (2003)(4) used the SERVQUAL (RATER) scale to assess service quality in a Malaysian private hospital. For all of the variables studied, the patient's perceived value of services outperformed expectations. It also determined that there was an increase in level of service quality as a result of hospital modernisation and certification.

SQ was operationalised by Reidenbach and Smallwood (1990)(5) with respect to patient trust, business expertise, level of care, support programs, personal features and waiting and empathy. Several other scholars have set up their own structures and tools in order to devise SQ in medical care. Vandamme and Leunis (1993)(6) formed a scale for evaluating hospital concentrations from a patient point of view. Tangibility, emergency response, assuredness, the quality of nursing and individual values and principles were all elements of hospital SQ which they found.

Tomes and Ng (1995)(7) created a scale to evaluate the service offered by hospitals in the United States. They came to the conclusion that the intangible components were empathy, mutual respect, dignity, understanding of disease, and religious needs, while the concrete aspects were food and physical environment.

SERVQUAL was used in healthcare services by Lam (1997)(8). Physical facilities were also discovered to be the least important to patients. Technical care comprised treatment, outcomes and physical therapy, while food, sound, ambient temperature, solitude, cleanliness and parking were included as well as personal care. In a research done in Thailand, Hasin et al. (2001) reported that communication, responsiveness, politeness, affordability and hygiene were factors of SQ in hospitals. They discovered that, while the hospitals provided acceptable overall service, personnel' attitudes and actions about non-conforming treatment needed to be addressed. In their study of the relationship between SQ practices and SQ outcomes Service quality in Indian hospitals Baldwin and Sohail (2003)(9) discovered that various variables have a significant impact on patients' perceptions of dental care.

The association between hospital's Service Quality and patients' purchasing intentions was investigated by Boshoff and Gray (2004)(10). ] In their research of hospital services in the United States, Otani and Kurz (2004) (11) identified around seven variables as major elements of SQ.

In their research of Bangalore (India) hospitals, Rohini and Mahadevappa (2006)(11) used the SERVQUAL framework and SERVQUAL variables. They gathered information from both patients and hospital management.

According to the findings, there was a general disconnect between patient perceptions and expectations, as well as between management's assessments of patient expectations and patient expectations. The authors made suggestions to close those gaps.

In India, Rao et al. (2006)(12) created a validated scale to assess in-patient and out-patient perceptions. Medicine availability, medical information, staff conduct, doctor behaviour, and clinic infrastructure were all considered as factors of perceived quality in healthcare services in their research. Das and Hammer (2007)(13) investigated the disparities in doctor competency in government and private hospitals in Delhi's wealthy and impoverished neighborhoods (India). In the comparison of the distribution of qualified doctors in both public and private hospitals it was found that the doctors in the public sector performed worst then in the private sector.

Healthcare SQ, according to Duggirala et al. (2008)(13), has seven dimensions: infrastructure, staff quality, clinical care process, administrative procedures, safety indicators, overall experience of medical care, and social responsibility. Personalization, physician-patient engagement, and interpersonal care were found to be important factors in developing SQ judgments in healthcare services.

Quality in healthcare can be classified into functional quality and technical quality and among both functional quality plays a critical role in influencing patients (1998)(2), Curry and Sinclair (2002)(14), Otani and Kurz (2004), Pakdil and Harwood (2005), and Ramsaran-Fowdar (2008), and the other type of quality that is technical quality is the most important aspect which is directly connected to the patient care. McGorry (1999)(15), Carman (1990)(15), and others. In India, Rohini and Mahadevappa (2006)(11) found that there was a general disconnect between patient perceptions and expectations, as well as between management's perceptions of patient expectations and patient expectations in Indian healthcare.

The level of customer service in the Indian hospitals must be improved a lot. This observation also helps us understand that there is unlimited urgency to improve the standards of Indian healthcare systems. So far the literature related to service quality just focused on patients and management perspectives. Since the level of trust in the Indian healthcare system is very high the various cognitive judgments from the patient side will not influence their rating of hospital services. Moreover the patients admitted in the hospitals always in very high distress which can be AEE physical or physiological. Because of this there is a requirement of other individual to co-ordinate with the service providers. In India there is always a Presence of an attendant along with the patients and the patient's perception is always influenced by the attendant's viewpoint. Keeping this in mind we should also keep in consideration the attendance perception while analysing a hospital service quality.(13)

Strasser et al. (1995) studied the various satisfaction levels of the patients to find out if there is a significant difference in opinion between patients and your family members. This study concluded that when overall perception towards service quality was considered the patients was always better satisfied in comparison with the relatives and friends. By this we can find out that even though the relatives are not the service receivers they always rate the services in a lower manner which will also influence the discontent among patients.

Given the credence qualities of a service butler et al (1996)(16) in his paper wanted to found find out the difference of opinion of hospital service quality between different variety of uses and their attendance. Patients differ based on the various demographic factors and their expectation or perception is also influenced. It was found out that the patients service quality perception and the family member's perception of service quality is significantly different. Tucker and Adams (2001)(17) investigated armed forces family members' perceptions service quality perception and their families perception of hospital SQ.

In their instrument, Tomes and Ng (1995)(7) Conducted study where the quality of care provided not just to the patient but also their family members was studied. The studies of such nature highlight the importance which has to be given to the patient's perception and also more importantly the perception of the patient's family are friends. The impact of the number of attendants present along with the patient was also studied but it most of the healthcare organisations always ignore the patients attendants perception or satisfaction.

According to Rhodes et al. (2008), The family members all the attendance of the patients in the treatment centres will happy e in a country like United States if they were frequently updated on the health status of the patients. There service quality and customer satisfaction are believed to be two sides of the same coin.

Oliver (1980)(18). Defined satisfaction as a situation where your perception exceeds the expectation., According to Oliver (1997)(19), Satisfaction for fulfillment it is a response which is emotional , effective and evaluative in nature. He believe that satisfaction is a part of post purchase behaviour and a person can only be happy once he evaluates the service after delivery (Kotler, 1991). Customer satisfaction can also be understood as the service providers capacity to fulfill the standards and expectations of the patients and service providers have to work hard to meet the expectation because every time the customers will want a better service (Dwyer et al., 1987; Fornell, 1992; Oliva et al., 1992). On one hand customer satisfaction is always linked to valuation prices of the service but service quality is not dependent on that (Anderson et al., 1994)(20).

The evaluation of service quality is always directly related to the various parameters related to the service delivered but when it comes to satisfaction large variety of characteristics which are not related to the services can influence the satisfaction of the patients. For example the mood of the patient that day de tan influence his satisfaction or dissatisfaction towards the service. Various theories have been formulated to try to find out how customer satisfaction can be analysed. According to a study done by Oliver in 1980 he was of the opinion that customer while purchasing a product or service will always have a pre buy expectation regarding the purchase he is about to make. The outcome after using the product or service is always compared with the expectation which the customer had before purchase. State of satisfaction is achieved when expectation meets to perception. If at all there is any gap between expectation and outcome this will lead to disconfirmation or dissatisfaction.(18)

According to Rotter's personal control theory One's impression of psychological difference between once expected results and actions GIF related to satisfaction with our achievements in our life. This is the reason the the patients always believe that they have the complete control over the healing process than others. The patients who always act causative agent feel always be satisfied with whatever level of service received in comparison to others will stop there are two basic models which is used to measure customer satisfaction that is the transaction specific model and the cumulative satisfaction model. In the healthcare services the customers satisfaction can be measured in variety of ways and in the study accumulator satisfaction model and the transaction Pacific model has been used. Patterson and Johnson (1993), Rust and Oliver (1997)(19), and Taylor (1994)(21) made attempts to separate the two constructs. Some researches where are of the opinion that consumers will not be in a position to differentiate between service quality and satisfaction (Cronin and Taylor, 1994; McAlexander et al., 1994). Even though there are a lot of assumptions it is a common belief that satisfaction and service quality are are two separate concepts which are strongly linked to each other. (Dabholkar, 1996; Shemwell et al., 1998)(22,23). This viewpoint was shared by Sureshchandar et al. (2002). This is the reason many studies used a modified SERVQUAL scale. They also found out that by making minor improvements in certain sections did not have any impact on customer satisfaction (Williams et al. (1998)).

### **Objectives of the current study:-**

The current study's objectives are as follows, in accordance with the findings of the literature:

1. To design comprehensive instruments to conceptualise SQ perceptions in hospitals.
2. To suggest measures to improve quality of service provided.

Hypothesis test are used to find out the influence of five dimensions of service Quality on customer per perception of service quality. They are as given below:

1. H1 Infrastructure has an influence on customer perception
2. H2 Personal quality has an influence on customer perception
3. H3 Administrative procedure has an influence on customer perception
4. H4 Safety of patients has an influence on customer perception
5. H5 dependability has an influence on customer perception

### **Constructs in the study**

This section describes the five constructs that were used in the current investigation. All five dimensions have been assessed from the viewpoints of patients. Patients' opinions on the quality of services provided to them are gathered. In the current investigation, the instrument proposed by Padma et al. (2009)(24) was employed to assess patients' SQ perceptions. The variables used are as below:

1. Infrastructure: Infrastructure refers to the tangible aspects of a delivery of services (equipment, firm/facility appearance, signs, resource availability, and so on). It's also known as "servicescapes" or "man-made physical environment." Infrastructure should not only be pleasant to the eye, but also clean, especially in the healthcare

industry. Customers rate the quality of services based on the tangible characteristics of services because services are essentially intangible. A hospital's technological competence, which includes technology for testing and treating various disorders, is an integral aspect of its infrastructure.

2. **People quality:** It refers to the overall quality of all service providers, including doctors, nurses, paramedics, and support employees. Customers want service staff to be responsive, trustworthy, friendly, truthful, and knowledgeable. Patients' opinions of the hospital tend to improve when staff is kind and polite.
3. **Administrative processes:** The admissions, stay, and discharge of patients are all part of the hospital administration. Many studies have found that patients in hospitals around the world are dissatisfied with the long wait times for diagnosis, treatment, and other services. The ease with which you can obtain Appointments, ambulance services, ease of admission and discharge, and so on are all available. vital for providing patients with a stress-free treatment throughout the hospitalisation. All personnel should demonstrate that they care throughout the experience and at each contact point are concerned about their patients, take great care to safeguard and enhance the hospital's reputation, and necessary to regain the trust of the patients in the hospital.
4. **Safety indicators:** The healthcare organisations have to make sure the customers feel secure and safe in transacting with them full stop if it all customer feels threatened in any way this will negatively impact the entire organisation. This variable is very critical because this deals with the basic requirement of the patients.
5. **Hospital trustworthiness:** The patient's confidence in the hospital is influenced by the hospital's reliability, as judged by his sense of well-being, security, and other factors. This, in turn, will influence the overall assessment of the service delivered.

### Research Methodology:-

The focus of this research is to compare the perspectives of patients and an instrument were created. The created instruments are given to patients in whom data is collected from each patient individually. The survey done on the patients was to understand the perception of the health care services delivered and also to find out the gap between the perception and expectation. The following are the inclusion criteria for patients:

1. The patient's must compulsorily in the past 6 months use any of the government or private hospitals to be included in the study. Various patients who were on the verge of being discharged were also considered.
2. The patient should have spent at least two days in the hospital (this is regarded a reasonable amount of time to experience all hospital-related processes). Hospitals having at least 30 beds were considered for this study.

After taking into account all the factors like accessibility of the hospital, the time constraint on the researches part the data was collected from roughly 200 respondents from Kasaragod district. This 200 responses included both private and government hospitals. Convenience sampling was used in this study.

### Data Analysis

In the table given below the descriptive statistics related to the five variables of service quality has been analysed.

Statements	Mean	SD
<b>Infrastructure:</b>		
Medicines and right quantity of blood available	3.81	0.754
Latest medical equipments available in proper working condition	3.75	0.671
The visual appeal of the various infrastructure and physical facilities in the hospital	3.57	0.649
<b>Personnel Quality:</b>		
Punctuality and competency of doctors	3.48	0.792
The skills and competencies of all support staff are very good	3.38	0.808
Healthcare workers have a friendly and positive attitude using which they understand the needs and requirements of the patients	3.85	0.772
<b>Administrative Process:</b>		
Simple procedure to consult the doctors	3.47	0.783
The procedure for discharge and admission are user friendly	3.30	0.763
The information provided related to the policies and procedure of the hospital is explained in a simple way	3.44	0.764
<b>Safety of patients :</b>		
Health care workers give maximum importance to hygiene by using gloves and mask	3.76	0.824

Clean and infection free environment is always maintained in the hospitals	3.95	0.799
Various safety equipments are present in the rooms and the common areas for the patient's protection	3.65	0.728
<b>Dependability</b>		
Doctors always instill confidence in the patient	3.95	0.766
Hospital provided services as promised and on time	3.80	0.783

**Table no 1:-** Table showing analysis of service quality variables.

The table above helps to interpret the five dimensions of service quality. First dimension is infrastructure, from the data above it can be inferred that the statement with availability of drugs and blood has received the highest mean score of 3.81. The statement which deals with the physical facility and visual appeal of the infrastructure receive the lowest mean score of 3.57. Infrastructure as a has got an overall value of 3.71 which shows customers or patients where moderate in their satisfaction towards this variable. The second dimension is personal quality and this received an overall means score of 3.57 which again points out those patients showed a moderate level of agreement to this variable. In analysing all the items related to personal quality it can be understood that statements dealing with friendliness and caring attitude of the staff in understanding the individual needs has got the highest mean score of 3.85. Punctuality and the competency of the doctors received a mean value of 3.48 and skills of various paramedical and support staff received a lower rating. These areas with lower ratings should be focused on.

Administrative procedures are the third variable of service quality. This variable is related to the procedures policies and system followed in the organisation or hospitals. Here most of the statements received a lower rating below 3.5, which shows customers are not happy with the administrative procedures of the hospitals. The admission and discharge procedure has got the lowest means score in comparison with others statements. This variable has got an overall means score of 3.40 which shows the patients are not happy with procedures of these hospitals. The fourth variable of service quality is safety measure. This variable is related to trust and dependability in these hospitals. Here the statement dealing with infection free environment in the hospital has got the highest ratings from the patients followed by the hygienic care from health care professionals. The statement related to the infrastructure facilities having safety measures has got a lower main score of 3.6. Overall analysis of safety measures helps us infer that the patients were happy with regards to this variable. The last and fifth variable of service quality is trustworthiness of hospital and by analysing the statements related to this variable we can infer that the patients showed a higher level of satisfaction or agreement to the statements in comparison with others. The patients felt that the doctors always instill confidence and the services are provided at the right time. This Variable has received an overall rating of 3.87.

#### Overall Comparison of Five Variables of Service Quality

In this section the researcher analyses the mean rank of the five variable to compare the customers perception towards these factors.

Variable	Mean	SD	Rank
Infrastructure	3.71	0.691	3
Personal quality	3.57	0.790	4
Administrative process	3.40	0.770	5
Safety of patients	3.78	0.783	2
Dependability	3.87	0.774	1

**Table 2:-** The table showing the mean ranks of all the five variables of service quality.

In this section the researcher attempts to understand the overall perception of patients towards these variables. When compared together we can understand that patients felt trustworthiness and safety measures are one of the most important factors which has influenced them. This is followed by infrastructure personal quality and administrative procedure. Here we can conclude that in healthcare sector patients field trust and dependability are the most important factor which will influence them when analysing their experience with this healthcare institutions. The management of these institutions should try to focus on these factors of trustworthiness and dependability and then and then to improve other variables.

**Test of hypothesis**

To test if there is a statistically significant influence of these variables on customer perception regression has been conducted and the result has been given in the below table. A total of five hypotheses have been framed where the researcher tried to analyse if these five variables of service quality has a significant influence towards customer perception.

Hypothesis	Statement	R square	P value	Remarks
H01	Infrastructure has an influence on customer perception	0.714	0.000	Supported
H02	Personal quality has an influence on customer perception	0.881	0.000	Supported
HO83	Administrative process has an influence on customer perception	0.881	0.000	Supported
HO4	Safety of patients has an influence on customer perception	0.838	0.000	Supported
H05	Dependability has an influence on customer perception	0.844	0.000	Supported

Table no 3: table showing testing of hypothesis using regression.

By analysing the data given in the table above it can be conclude that with the p-value of 0.000 all the alternative hypothesis has been accepted at 1% level of significance. So we can say that all five variables have a positive influence on customer perception.

**Correlation**

	Infrastructure	Personal quality	Administrative procedure	Safety measures	Trustworthiness of hospital
Infrastructure	1				
Personal quality	0.780	1			
Administrative procedure	0.694	0.845	1		
Safety measures	0.670	0.831	0.910	1	
Trustworthiness of hospital	0.713	0.813	0.833	0.799	1

**Table no 4:-** Table showing correlation among variables.

By analysing the above table it clearly explains that the safety measure and administrative procedures (0.91), administrative procedure and personal quality (0.84), safety measures and personal quality (0.83), trustworthiness and administrative procedure (0.83), trustworthiness and personal quality (0.81) have a strong relationship. Rest all remaining Aspects are having high average relationship among them. All these variables are positively correlated with each other.

**Conclusion:-**

SQ as a five-dimensional framework has been validated in this study. This research has proposed an instrument for identifying the dimensions of SQ from the perspective of patients. The impact of SQ dimensions on patient perception was investigated using multiple regressions. Several experts have sought to improve health-care quality. The majority of these studies used a questionnaire to gauge patient happiness. Customer satisfaction, according to many researchers, is the most crucial factor. Only a few academics have created their own model or worked with the indicators provided by various health agencies. Training doctors and workers to follow a set of policies and procedures can improve health quality. Management should also confirm this through patient health records. Customer satisfaction and quality metrics provided by many national and international societies might be combined to conduct more work. The consumer cannot determine the quality of services delivered to them, however infection rates, adverse events, hospital-acquired infections, and average length of stay of patients in hospitals can all be used as indicators. The research can also be done at the primary, secondary, and tertiary levels of the health-care system. Few scholars have looked into rural areas for their studies. Health-care quality can also be attributed to rural locations.

**Reference:-**

1. Donabedian A. Quality Assessment and Assurance: Unity of Purpose, Diversity of Means. *Inquiry*. 1988;25(1):173–92.
2. Andaleeb SS. Determinants of customer satisfaction with hospitals: a managerial model. *Int J Health Care Qual Assur*. 1998 Nov 1;11(6):181–7.
3. Fornell C. A National Customer Satisfaction Barometer: The Swedish Experience. *J Mark*. 1992;56(1):6–21.
4. Sohail MS. Service quality in hospitals: more favourable than you might think. *Manag Serv Qual Int J*. 2003 Jun 1;13(3):197–206.
5. Reidenbach RE, Sandifer-Smallwood B. Exploring Perceptions of Hospital Operations by a Modified SERVQUAL Approach. *J Health Care Mark Boone*. 1990 Dec;10(4):47.
6. Vandamme R, Leunis J. Development of a Multiple- item Scale for Measuring Hospital Service Quality. *Int J Serv Ind Manag*. 1993 Sep 1;4(3):30–49.
7. Tomes AE, Ng SCP. Service quality in hospital care: the development of an in- patient questionnaire. *Int J Health Care Qual Assur*. 1995 Jun 1;8(3):25–33.
8. Lam SSK. SERVQUAL: A tool for measuring patients' opinions of hospital service quality in Hong Kong. *Total Qual Manag*. 1997 Aug 1;8(4):145–52.
9. Baldwin A, Sohal A. Service quality factors and outcomes in dental care. *Manag Serv Qual Int J*. 2003 Jun 1;13(3):207–16.
10. Boshoff C, Gray B. The relationships between service quality, customer satisfaction and buying intentions in the private hospital industry. *South Afr J Bus Manag*. 2004 Dec 1;35(4):27–37.
11. Rohini R, Mahadevappa B. Service Quality in Bangalore Hospitals - an Empirical Study. *J Serv Res Gurgaon*. 2006 Sep;6(1):59-68,70-76,78-79,81-84.
12. Rao KD, Peters DH, Bandeen-Roche K. Towards patient-centered health services in India—a scale to measure patient perceptions of quality. *Int J Qual Health Care*. 2006 Dec 1;18(6):414–21.
13. Duggirala M, Rajendran C, Anantharaman RN. Patient- perceived dimensions of total quality service in healthcare. *Benchmarking Int J*. 2008 Aug 29;15(5):560–83.
14. Curry A, Sinclair E. Assessing the quality of physiotherapy services using Servqual. *Int J Health Care Qual Assur*. 2002 Sep 1;15(5):197–205.
15. Carman JM. Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *J Retail*. 1990;66(1):33–55.
16. Butler D, Oswald SL, Turner DE. The effects of demographics on determinants of perceived health- care service quality: The case of users and observers. *J Manag Med*. 1996 Oct 1;10(5):8–20.
17. Tucker JL, Adams SR. Incorporating patients' assessments of satisfaction and quality: an integrative model of patients' evaluations of their care. *Manag Serv Qual Int J*. 2001 Aug 1;11(4):272–87.
18. Oliver RL. A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *J Mark Res*. 1980;17(4):460–9.
19. Oliver RL, Rust RT, Varki S. Customer delight: Foundations, findings, and managerial insight. *J Retail*. 1997 Sep 1;73(3):311–36.
20. Anderson EA. Measuring service quality at a university health clinic. *Int J Health Care Qual Assur*. 1995 Apr 1;8(2):32–7.
21. Taylor SA, Baker TL. An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *J Retail*. 1994 Jun 1;70(2):163–78.
22. Dabholkar PA, Shepherd CD, Thorpe DI. A comprehensive framework for service quality: an investigation of critical conceptual and measurement issues through a longitudinal study. *J Retail*. 2000 Jun 1;76(2):139–73.
23. Shemwell DJ, Yavas U. Measuring Service Quality in Hospitals: Scale Development and Managerial Applications. *J Mark Theory Pract*. 1999 Jul 1;7(3):65–75.
24. Padma P, Rajendran C, Lokachari PS. Service quality and its impact on customer satisfaction in Indian hospitals: Perspectives of patients and their attendants. *Benchmarking Int J*. 2010 Oct 26;17(6):807–41.