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Quality of healthcare service and its influencing factors: A study of private hospitals in Uttarakhand India

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Abstract---Although INDIAN healthcare is described as “the largest sector, both in revenue and employment.” Developments and improvements in healthcare services give importance to the concept of competition and encourage increased quality among the healthcare centers. The quality of service –the characteristics that shape care experience beyond technical competence- is rarely discussed in the medical literature. This study reveals the determinants that affect the perception of the quality of healthcare services from the patients’ points of view. A cross-sectional method was followed to determine the perception of quality of healthcare services and relating variables, including infrastructure, reliability & responsiveness, empathy, affordability, and administration. The data collected from 400 in-patients for the study were analyzed using Confirmatory Factor Analysis. This study connects the findings of related studies that the hospital service quality significantly affected patients’ perceptions. Results confirmed that healthcare service quality aspects (i.e., physical environment, staff behavior, responsiveness, affordable services, admission process) positively relate to patients’ perception. Findings will help the hospital managers articulate effective strategies to ensure superior quality of healthcare services to patients. The study will induce hospital management to focus on the quality of private healthcare service systems and improvements towards deficient healthcare services.

Keywords---confirmatory factor analysis, healthcare, patients, service quality.

Introduction

Health is summarized as a condition of complete physical, mental and social wellbeing and not only the nonattendance of illness and sickness WHO (2000). Health care is a service that deals with the diagnosis, treatment, and prevention of disease, illness, injury, and other physical and mental impairments in human beings. Practitioners deliver health care in allied health, dentistry, midwifery, medicine, nursing, optometry, pharmacy, psychology, and other care providers WHO (2014). Health is one of the fundamental human rights accepted in the Indian Constitution (Article 21). The Indian healthcare delivery system is categorized into two major components - public and private. Public sector ownership is divided between Central & State governments, municipalities, and Panchayats (local governments). The facilities include teaching hospitals, secondary level hospitals, first-level referral hospitals (community health centers/rural hospitals), dispensaries, primary health centers, sub-centers, and health posts. The private sector provides most secondary, tertiary, and quaternary care institutions. India is experiencing a growing reliance on private healthcare providers who currently treat 78 percent of outpatients and 60 percent of inpatients.

Healthcare has become one of India's largest sectors in revenue and employment. The total size of the industry has touched the US \$ 160 billion in 2017 and will cross the US \$ 372 billion by 2022. The hospital industry in India stood at Rs 4 trillion (USD 61.79 billion) in 2017 and is expected to increase at a Compound Annual Growth Rate (CAGR) of 16-17 percent to reach Rs 8.6 trillion (USD 132.84 billion) by 2023. The tremendous growth of the health care industry is due to its coverage, range of services offered, and increasing expenditure made by the public as well private players. The private healthcare system came into vogue due to the acute shortage and gross inefficiency and the malfunctioning of the public health care, delivery mechanism, and meeting the growing population's healthcare and hospital needs. Private healthcare facilities initially started as a complementary mechanism to public healthcare facilities in the country. But then, because of the quality, efficiency, and reliability, private healthcare facilities began to be preferred over the public healthcare system. The Private Healthcare sector had been a USD 100 billion market in 2015 and will grow to USD 280 billion by 2020. Its call is estimated at USD 81.0 billion at the end of 2015 and is growing at a Compound Annual Growth Rate (CAGR) of 24.2 percent. The primary motivation behind this emergence of big private hospitals is inducement, specifically the lack of financial and physical resources in the public healthcare sector, the rising demand for healthcare from domestic patients, the need for international patients, increment in the number of hospitals in Tier-II, Tier-III cities, and finally, the economic growth of India.

Quality orientation is one of the fundamental needs of any dynamic association to enhance productivity (Phillips et al., 1983), a piece of the pie (Buzzell and Gale, 1987), venture returns, and cost decrease (Deming, 1986; Anderson and

Zeithaml, 1984 and Parasuraman et al., 1985, 1988). Quality is the pith of human advancement. It is the most sought-after thing in the service industry. Quality alludes to the closeness of an actual result to the result expected by the onlooker, as characterized or consented to by that observed (meeting necessities). These expectations depend on expected utility, offering value.

With the increasing number of service providers available in the market and the increased consumer purchasing power, the performance and expectations helpful to quantify quality are becoming multitudinous. There is so much offered to the clients that if a maker neglects a client's desire, the client will look for other options. An organization that needs to maintain development in this consistently developing focused market needs to give quality in its offering not according to its guidelines, but rather on the standard that fulfills the voracious want of clients for quality (Gill, 2009). The quality of healthcare services is a standout amongst the most vital themes in the healthcare sector. The Institute of Medicine (IOM) has defined the quality of health care as 'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. Providing high quality medicinal care services have turned out to be a significant challenge for healthcare facilities regarding fulfilling and holding patients (Oliver, 1980; Parasuraman et al., 1985, 1988; Zeithaml et al., 1996; Padma et al., 2010, and Amin et al., 2013) Thus, with a specific end goal to give better support to patients, estimating service quality and its determinants has gain importance.

Enhancing and keeping up the quality of care while lessening costs is a basic predicament that all healthcare administrators confront. The definition, estimation and change of quality in healthcare have been issues of essential significance. With pressure to increase access while abridging costs, focused healthcare institutions make a decent attempt to accomplish objectives without letting quality to suffer. In this unique situation, Donabedian (1996) commented that healthcare organizations should focus on multifaceted dimensions and fulfill the necessities, interests, and requests of three chief gatherings: the individuals who give the services (i.e., health services experts), the individuals who deal with the services (i.e., administration), and the individuals who utilize the services, i.e., patients (Camilleri and Callaghan, 1998). There is widespread agreement that quality is a critical competitive weapon providing the firm with numerous benefits in terms of increased market share and profitability (Garvin 1987; Keiser 1988; Sherden 1988). There is a growing consensus that quality is the most critical variable affecting consumer intention to purchase or repurchase products and services (Biiner 1990; Zeithaml 1988). To achieve customer satisfaction in terms of quality, it should be managed efficiently.

Rationale of the study

Service quality entirely differs from another type of quality, namely the quality of products. One possible reason for the difference could be the complexity of service quality existing due to several features such as an absence of tangible pieces of evidence, behavioral components, and close interaction between service organizations and their customers (Parasuraman et al., 1985). Another reason for the complexity is the absence of one standard service quality definition (Gill,

2009). Difficulties in defining a common concept of service quality consist of its ingredients that could be tangible and intangible and the subjective nature of humans' evaluation of services that differ in product quality (Yoo & Park, 2007). Even though healthcare and other service industries provide services for customers, they could be seen as specific cases of service industries. Quality of healthcare services is an essential part of the healthcare industry as it directly deals with human health and bears responsibility for their lives. Berwick et al. (1990, cited in Natarajan, 2006) supported the view by pointing out that the cost of poor quality is significantly higher within the healthcare industry. The outcome of healthcare service depends not only on healthcare service providers but also on patients' cooperation and compliance with treatments. Besides this, within healthcare organizations, there are different subcategories of employees which affect healthcare service quality and have their perceptions of it (Zabada et al., 1998, p. 58). Considering the listed facts, it is suggested that it could be challenging to track one common perception of healthcare service quality and general service quality.

Studies on Healthcare Service Quality

As per Gronroos (1984), service quality has two components: technical quality and functional quality. Technical quality is characterized as the primary care attributes like treatment provided etc. In contrast, available quality refers to secondary care attributes, i.e., how the services are delivered, like service personnel's friendliness, timely delivery, etc. This model of service quality has been recognized as primary work in service quality research. Gronroos (1990) included the "image" of the service provider as the third dimension and technical and functional quality. Dwivedi et al., 2010 defined service quality as the quality consumers, get from the service provider. At the same time, Parasuraman et al. (1985) define it as the function of the differences or gaps between customers' expectations and performance along the quality dimensions. Every consumer has certain expectations towards a service before consuming it. Service quality measures how well the service was delivered compared to customer expectations. Businesses that meet or exceed customer expectations are considered to have high service quality. Perceived service quality is depicted based on consumer evaluation of qualities by correlating their perception of what is expected and offered (Zeithaml, 1988). Service quality means "perceived service quality" the literature on service quality has considered evaluating services from customers' perspectives. Service quality is recognized as a critical determinant in the success of any organization operating in a competitive environment. With the expansion in service quality, profit margins increase, costs decrease, and a positive attitude spreads out (Zeithaml, 2000). As the ratio of informed and demanding customers increased, companies realized that product quality was not enough to gain a competitive advantage and combined product quality with service quality (Gupta et al., 2005). There is no universal definition of service quality dominating literature (Zineldin, 2006); however, many researchers have defined service quality with their facts.

Care service is invisible and can't materially be touched, felt, watched, counted, or unhurried like factory-made products. Thus, it's even tougher to outline and live it. Donabedian (1980) outlined care quality because of the application of

bioscience and technology in a very approach that doesn't offer any risk and maximizes its edges correspondingly to health. He distinguishes three parts of service quality, namely, technical quality (the effectiveness of care in manufacturing doable fitness gain), social excellence (accommodating patient desires and preferences), and facilities (such as physical environs and organization qualities). Lohr (1991) delineates excellence of care because the degree to that care facility for people and population will upsurge the chance of desired health outcomes and keep with the present skilled information. Consequently, quality care service aims to extend the opportunity for the best health consequences for the enduring. This meaning additionally emphasizes the importance of smearing skilled information once providing care facilities.

Øvretveit (1992) outlined care excellence because the delivery surpasses patient prospects and achieves the best possible clinical consequences with all the resources offered. He industrialized a system for up care quality supported dimensions. The skilled rate indicates whether professionally assessed shopper desires are met with mistreatment correct techniques. Consumer excellence means whether or not straight recipients feel they get what they need from the services. Management quality ensures that services are delivered in a very resource-efficient approach. According to Schuster et al. (1998), intelligent care excellence means "providing patients with satisfactory services technically capable manner, with a smart message, communal deciding and cultural compassion." These care services should meet professional standards. On the other hand, they believe that deprived excellence means that an excessive amount of care (e.g., extra tests and medicines with related risks and aspect belongings), poor upkeep (e.g., not if Associate in Nursing designated analytic assay or a surgical delivery process), or the incorrect care (e.g., prescribing medicines that ought to not run together).

Leebov et al. (2003) argued that care quality means "doing the correct things right and creating incessant enhancements, getting the simplest attainable clinical outcome, satisfying all customers, holding gifted employees and upholding sound money presentation." Joss and Kogan (1995) see excellence as a 3-dimension model: technical, systemic, and broad. Mechanical excellence thinks about the skilled work content; general excellence mentions system and method quality that functions across the boundaries between work areas, and generic quality means quality aspects involving interpersonal relationships. Consequently, attention service first-class definitions indicated in the literature are located in two organizations:

- Healthcare services whose traits and options meet pre-set specs and standards. Throughout this technique, exceptional is outlined as "conformance to specifications, requirements or requirements" and "pleasurable company's expectancies." The main goal is internal (i.e., deliver-facet quality). Phrases like accuracy, liableness, and effectuality are excellent through this elegance.
- Healthcare offerings whose traits and alternatives meet or exceed patron goals and expectations. "first-class" is printed as "satisfying purchaser expectancies and needs" throughout this method. As a result, the main goal

is external (i.e., demand-side best). Terms akin to effectiveness, empathy, protection, and affordability are fine attributes throughout this class.

Research Methodology

Sampling

Data were collected from patients who were admitted to the hospital for at least 72 hours and service providers' had a minimum experience of 3 years so that quality of service can be assessed by using judgmental sampling (inclusive criteria for patients and providers). Data were collected through structured interviews/questionnaires. At the beginning of the interview, we have one data item (containing the inclusive criteria for patients and service providers). If any respondents didn't fit those criteria, they were excluded from the study. In this way, we did 400 interviews (300 from patients and 100 from service providers).

Sample Size

According to Hair et al., 2006, the researcher can take the sample size according to data items in the study. As in this study, there are 15 data items of five variables (infrastructure, reliability & responsiveness, empathy, affordability, and administration), done ten times of it; the number we obtained is the minimum size of the study. So, here in this research, 150 is the minimum sample size. But, for more accuracy of the study, the researcher here took data from 400 respondents. During the initial phase, when a researcher did pilot testing, a questionnaire was filled out by the 50 respondents. A pilot investigation was conducted in the preliminary stage to examine the accuracy of the research instrument and was carried out on a small number of participants who were part of the sampling universe. So, after doing the pilot study, 4 data items were removed from the study. Among respondents, 49% were females, and 51% were male.

Hypotheses Formulated

Once developing the conceptual framework, these hypotheses were formulated:

- **H₀₁:** Infrastructure service quality does not positively influence the perception of patients and service providers.
- **H₀₂:** Reliability & Responsiveness service quality not positively influences patient and service provider perception.
- **H₀₃:** Empathy service quality not positively influences patient and service provider perception.
- **H₀₄:** Affordability of service quality not positively influences patient and service provider perception.
- **H₀₅:** Administration service quality not positively influences patient and service provider perception.

Results

Intrinsic Results

Data were gathered and analyzed using confirmatory factor analysis (CFA). This multivariate statistical method is used to test how well the measured variables represent the number of constructs: the measurement model to test the proposed hypotheses. In recent years, such an analysis method has been widely used. AMOS Graphics software was used in our research to test the measurement model (Hsu & Lin,2020). Under CFA, we analyze how reliable the observed variables are about latent constructs, which are represented by squared multiple correlations (SMC).

Descriptive Statistics

The value of the mean and standard deviation of the 15 variables under five constructs from the theory of service quality is depicted in Table 1. In the 5-point Likert scale, the average values of the five constructs are as follows: infrastructure (I=3.776), reliability & responsiveness (R&R=3.456), and Empathy (E=3.703), affordability (AFF=3.630), and administration (AFF=3.510).

Table 1
Descriptive statistics of service quality of customers'

S.No.	Coding	Variables	Mean (SD)
1	I1	Availability of medical equipment in proper working condition	3.77(1.102)
2	I2	It is easy to find healthcare facilities and other amenities i.e., lab, doctor's office, pharmacy, cafeteria etc (sign boards available) inside the hospital premises.	3.70(1.179)
3	I3	Sufficient beds for patients	3.86(1.082)
4	R&R1	Timely promised services (e.g., time of the operation, investigation, medicine, food)	3.30(1.055)
5	R&R2	Doctors & staff are always ready to respond to customers' requests and queries.	3.49(0.994)
6	R&R3	The hospital staff are never too busy to respond to customer requests	3.58(0.990)
7	E1	Individual attention to patients (e.g., learning a patient's specific medical history, flexibility to accommodate individual patients' requirements, preferences, dislikes)	3.72(0.976)
8	E2	The staff of the hospital have polite and careful listening attitudes towards patient	3.70(1.118)
9	E3	Patients' best interests at heart (e.g., building long-term relationships, providing leading-edge medical care)	3.69(1.042)
10	AFF1	The hospital provides good service at a reasonable cost without compromising on quality.	3.49(1.064)

11	AFF2	The charges for various tests and other medical services are affordable to the customers.	3.46(1.040)
12	AFF3	The hospital does not charge extra and unreasonable fee from patients and patient's guardian.	3.94(1.203)
13	ADMIN1	Presence of proper billing system in the hospital	3.53(1.132)
14	ADMIN2	Maintenance of patient privacy and confidentiality	3.52(1.099)
15	ADMIN3	Short and simple overall Administration Process (e.g., Admission, stay and discharge; procurement of drugs and hospital equipment; allocation of operation theatres and beds)	3.48(1.130)

Measurement Model or Confirmatory Factor Analysis

Confirmatory factor analysis or measurement model estimates the model validity and reliability. A measurement model specifies the five factors of the service quality model theory, and each variable high only one aspect. AMOS software was used with the maximum likelihood method to estimate the standardized solution of the measurement model, and all the 15-variable loaded highly corresponding elements. For good convergent validity, the high value of t (CR) was found, and the Chi-square is a badness-of-fit measure; the small matter of chi-square means a good fit, and a high value shows a bad fit. Through this analysis, the researcher found the following values:

- $X^2 / \text{degree of freedom} = 153.45/80 = 1.918$
- Goodness-of-Fit (GFI) = 0.945
- Adjusted of Goodness-of-Fit (AGFI) = 0.917
- Tucker-Lewis index (TLI) =0.954
- Comparative fit index (CFI) =0.965
- Normalized fit index (NFI) = 0.941
- Root mean square error of approximation (RMSEA) =0.058

The root means a square error of approximation (RMSEA) is the badness of fitness; it measures the discrepancy per degree of freedom (Steiger, 1990; Browne & Cudeck, 1993). The lower value of RMSEA better fit and the higher value indicates a poor fit, the importance of RMSEA should be .08 or .09. All the fit indices comply with the values recommended by (Hair et al., 1998) and Arbuckle and Worthke (1995) except for chi-square/degree of freedom. Table 2 shows the results; all the values are more significant than the cut-off values. Our measurement model is a good fit for customers' perception of service quality data (figure 1).

Table 2
Fit indices of the measurement model

Fit indices of constructs	Criteria	SQ Model
Chi-square/df (degree of freedom)	<2	1.918
Goodness of Fit Index (GFI)	>0.95	0.945
Adjusted Goodness of Fit Index (AGFI)	>0.95	0.917

Tucker Lewis Index (TLI)	>0.95	0.954
Normed Fit Index (NFI)	>0.95	0.941
Root Mean Square Error of Approximation (RMSEA)	<0.08	0.058

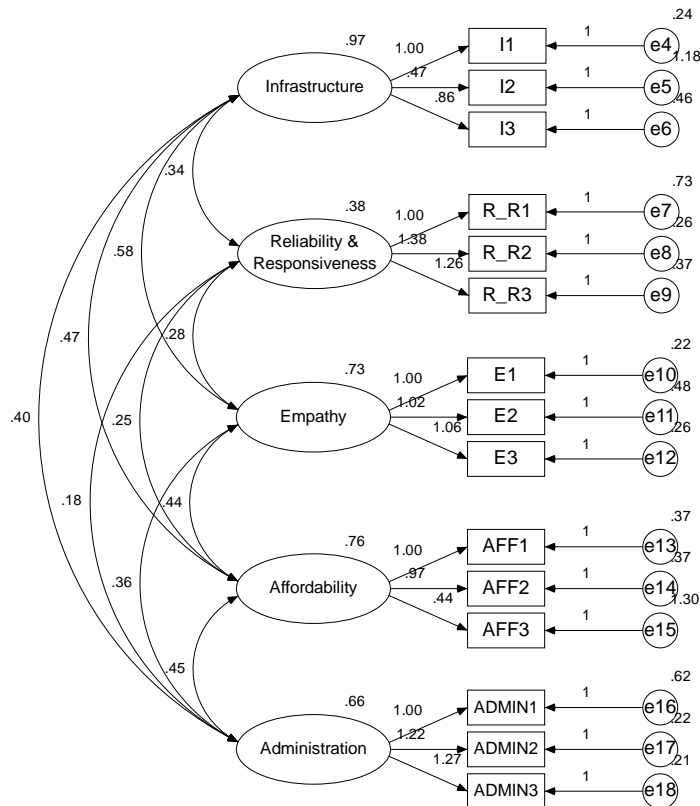


Figure 1. Measurement model of the theory of service quality

Measurement Model's Validity and Reliability

The construct validity of the measurement model was assessed through convergent validity and discriminant validity. The service quality model has five constructs; infrastructure, reliability & responsiveness, empathy, affordability, and administration. Convergent validity was estimated through standardized factor loading and all the five constructs' values above the cut-off value, i.e., 0.714. The most prevalent method for estimating the reliability value is the Cronbach Alpha method. It informs the objects' relationship and says whether or not they belong to the same domain. The reliability of five factors was estimated through Cronbach's alpha, values ranging from 0.713 to 0.877. Nunnally suggested Cronbach's alpha above 0.700. As far as measurement model validity and reliability are concerned, there is no problem, and the measurement model fits this data. From table 3, all the values of Cronbach's alfa above the cut-off value of 0.7 mean all the constructs are reliable. Hair et al. suggested the standardized factor loading should be greater than 0.700, the range of the significant. Convergent validity of the measurement model is assessed through

composite reliability and average variance extracted, and it should be greater than 0.700 and 0.500. The composite reliability and average variance extracted values of the measurement model ranged from 0.8264 to 0.8841 and 0.6140 to 0.7200, respectively.

Table 3
Reliability and validity of the measurement model

Construct	Items	Chrobach' Alfa	Standaradized Factor Loading	Construct/ Composite Reliability	Average Variance Extracted	Communality or delta (h ²) (Item Reliability or Sqaured factor loading)	Standardized error variance (u ²)
Infrastructure	I1	71.30%	.895	86.29%	67.80%	$(.895)^2=.801$	$1-(.895)^2=.199$
	I2		.790			$(.790)^2=.624$	$1-(.790)^2=.376$
	I3		.781			$(.781)^2=.609$	$1-(.781)^2=.391$
Reliability & Responsiveness	R&R1	77.10%	.884	88.06%	71.13%	$(.884)^2=.781$	$1-(.884)^2=.219$
	R&R2		.858			$(.858)^2=.736$	$1-(.858)^2=.264$
	R&R3		.786			$(.786)^2=.617$	$1-(.786)^2=.383$
Empathy	E1	87.70%	.876	88.18%	71.37%	$(.876)^2=.767$	$1-(.876)^2=.233$
	E2		.784			$(.784)^2=.614$	$1-(.784)^2=.386$
	E3		.872			$(.872)^2=.760$	$1-(.872)^2=.240$
Affordability	AFF1	74.70%	.819	82.64%	61.40%	$(.819)^2=.670$	$1-(.819)^2=.330$
	AFF2		.811			$(.811)^2=.657$	$1-(.811)^2=.343$
	AFF3		.718			$(.718)^2=.515$	$1-(.718)^2=.485$
Administration	ADMIN1	87.70%	.716	88.41%	72.00%	$(.716)^2=.512$	$1-(.716)^2=.488$
	ADMIN2		.903			$(.903)^2=.815$	$1-(.903)^2=.185$
	ADMIN3		.913			$(.913)^2=.833$	$1-(.913)^2=.167$

Discriminant Validity

Discriminant validity tells us how many constructs are distinct from each other. The squared inter-construct correlations should be less than the average variance extracted for discriminant validity. Table 4 results show that constructs are genuinely different from each other.

Table 4
Discriminant Validity

Construct	I	R&R	E	AFF	ADMIN
I	.6780				
R&R	.3237	.7113			
E	.4816	.2830	.7137		
AFF	.3058	.2134	.3528	.6140	
ADMIN	.2490	.1361	.2704	.4019	.7200

Discussion and Conclusion

This study purposes to know the perception of service quality from the patients' perspective in selected private hospitals in north-Indian. The results in this study support the research and the hypotheses regarding the relationship among the variables. The results of the CFA model shown in the above figures revealed that

empathy has a strong impact and is shown as an influential determinant of the service quality for the patients' followed by administration, reliability & responsiveness, infrastructure, and affordability. This study supports the results of many studies that empathy is the most critical factor influencing the patients' perception of service quality (Chaniotakis, 2009; Ramez, 2012; Aliman & Mohamad, 2013; Amin & Nasharuddin, 2013). It means that patients are looking for a hospital that provides services; when patients have problems, the hospitals will show a sincere interest in solving them, provide services at the promised time, and provide several products and services.

The result show that patients are more satisfied with the approach that hospitals use to solve problems. This indicates that hospitals must be aware of the patient's problem and provide fast treatment to solve it. In this sense, behavioural intention was based on willingness to recommend the hospital to others, willingness to inform about the advantages of the hospital and considering the same hospital as a first choice in future medical treatment. In addition, to achieve competition advantage, both public and private hospitals must keep improving their service continuously to make sure the level of service quality is at the maximum level to gain better patient's perception. In this sense, indicates that patient more aware of time and money their spent and will effect on their perception accordingly. Therefore, hospital service quality can be used as a benchmark for hospitals for further improve their services compared to other hospitals (Aagja and garg, 2010; Arasli et al., 2008; Padma et al., 2010). Under this outcome- oriented philosophy, healthcare service quality has been defined in terms of what provide rather than how to provide it. It was assumed that patients would be satisfied if they received a scientifically appropriate treatment. However, results of the present study suggest to both clinicians and managers of healthcare organizations that the service quality dimensions relating to how the service is delivered to the patients, regardless of their gender, age, or types of service they received, may be as important as the quality of the core service. Health organizations need to educate their personnel about what patients expect and want, as well as how effectively these expectations and wants can be satisfied.

Implications

The findings of the study gave important implications for managers of Indian Hospitals, especially in terms of the quality of services that could be provided; and the significant influence on perception of their patients. The implications of the findings of this research study are presented under three headings i.e., theoretical implications, implications for practicing doctors and supportive staff, and implications for management.

Theoretical Implications

The results of this study have many significant theoretical implications. First, this research applied a perceived model in a new context of the Indian corporate hospital services. The success of incorporation of the patient perception in the proposed research model is evident from the results. The results suggest that the proposed model of the corporate hospital services demonstrates a considerable exploratory and predictive power.

Implications for practicing doctors and supportive staff

- First, practicing doctors should note that the traditional approach to treating patients only with medicines will no longer suffice their patients' needs. Patients expect more than that from their doctors. For example, patients want their doctors to be more humane and exhibit more kindly behaviour in their interactions with them. Therefore, doctors should broaden their approach in treating patients by incorporating the needs of patients in their service delivery.
- Second, since effective communication can greatly contribute to the creation, development and retention of long-term relationships with their patients, doctors and paramedical staff need to seriously consider making their communication efficient and effective. Specifically, this involves building and retaining relationships with clients through better-than-average interaction and explaining behaviour.
- Third, doctors and paramedical staff need to respond to clients' confidence in them by providing quality services based on their needs and requirements. For example, many patients consider their doctors as advisors and open their hearts to them in sharing personal issues with them in the hope of obtaining guidance in overcoming issues that are indirectly associated with their illness. Doctors and paramedical staff should consider this important issue while interacting with patients.
- Fourth, doctors and paramedical staff need to improve their listening behaviour by letting patients communicate what they actually want from their doctors. Doctors should then assure their patients that the issues they raised have been heard and they will do what is necessary. Finally, doctors and paramedical staff should be fully aware of the service needs of patients. Their interaction strategy should be tailored to understand the unique communication needs of the individual patient for facilitating the development of mutual bonding.

Implications for management

- First, in order to improve service quality by changing patient's perception regarding healthcare system, management should evaluate their doctors' performance not only in terms of their technical proficiency but also their ability and willingness to effectively communicate with their patients during interactions.
- Second, management can formally introduce in-service training programs aimed at equipping every individual doctor with the knowledge and interaction skills needed for professional communication with patients.
- Third, occasional surveys of patient perception of services with special references to the interaction and listening behaviour of doctors would enable a healthcare service management group to be alert to any actions required to ensure that patients' needs are being met.
- Finally, healthcare managers have to consider healthcare delivery as a network event rather than as an isolated encounter by involving patients' family/friends in the care. Managers can also focus on budget neutral approaches for the factors which have little or no impact on satisfaction.

Reducing negative word of mouth can have significant bearing on the very business model and financials of hospitals.

These above implications are merely applicable to doctors and the healthcare providers in an emerging economy as India, where the doctor-population ratio is very low and as such doctors usually have to see a large number of patients compared to medical specialists. The reality is that in countries such as India doctors have less time to spend on each patient and consequently patients have less healthcare-related information and education in emerging economics. It is essential that Indian medical practices develop a culture of fostering effective communication and explaining behaviour and this will require communication skills training.

Limitation of the study

Although this study has provided some interesting findings, there are a number of limitations of this research.

- First, this research examined the concept of healthcare service quality from the perspective of patients and service providers of the private hospitals. Furthermore applying the model to different hospitals in different cities may give distinctive or additional helpful results.
- Second, the study is restricted to selected private hospitals, but its results can be generalised for other than these hospitals across the country, as well as other developing countries. However future studies can be done that will gauge the perception and additionally desires of both public and private hospitals' patients and providers with the same or other healthcare service quality dimensions addressed in this study.
- Third, to assess healthcare service quality and patient perception from overall patients' and providers' perspectives, outdoor patients and unexperienced providers need also to be considered in the future study, which are excluded from the study.
- Last, the findings of the study are based on overall perception of the patients, but no comparison has been made between the perception level of patients seeking treatments from the public and private healthcare sectors. In future research, qualitative perspective of patients and providers need also to be taken it will give more in-depth knowledge, which is not included in the study.

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