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QUALITY OF HEALTHCARE SERVICES IN PUBLIC AND PRIVATE HOSPITALS OF PESHAWAR, PAKISTAN: A COMPARATIVE STUDY USING SERVQUAL

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ABSTRACT

Globalization trends have made patients willing to pay even more for quality healthcare services and there is no second opinion that patients' satisfaction comprehends in terms of receiving quality healthcare. Countries like Pakistan are still unable to rank themselves in the competition of quality health care services as 'quality' in healthcare is a vague concept here both from providers and patients' perspectives. Moreover the health care system of Pakistan is facing challenges of inequities and inadequacy both in terms of delivery and access of quality services. Appropriate assessment of the healthcare services quality and developing mechanisms are mandatory. The objective of this study was to quantify the healthcare quality in the hospitals of Pakistan using the modified SERVQUAL instrument (α=0.92). A convenient based sample (n=500) was comprised of patients from ten hospitals both in public and private sectors located in Peshawar, Pakistan. The results of the study identified quality GAPS in various dimensions of healthcare services. Besides private sector hospitals have comparatively low quality Gaps as compared to public sector hospitals however bridging up the existing gaps are suggested in both the sectors through continuous improvement across a range of services. There is a need for matching the patients' expectations with the contribution of healthcare services providers in Pakistan to be competitive globally in the industry.

Keywords: Quality Healthcare services, SERVQUAL

INTRODUCTION

Global forces are increasingly manipulating local and conventional managerial practices both in industrial as well as service sector. These changes encompass each aspect of social life of nations including services such as; communication, healthcare and education. In alliance with the global trends, the services sector has emerged as the leading, fastest growing and a major contributor to the global output. Unlike a product, services are intangible, perishable, variable and inseparable in nature thereby have own challenges to compete for quality (Kotler, Bloom, & Hayes, 1984).

Health organization works as a system and is a facility or set of coordinated facilities that provides health care services. Health Systems are normally appraised in terms of their ability to deliver accessible, safe, high quality, efficient, and equitable care for the sake of population health and longevity (UNDP report, 1990; WHO 2007; Malik, 2013). The worldwide changing socio-political, economic needs of the population and

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and demographic trends demand an innovation and change to develop a robust healthcare systems. The healthcare sector is undergoing significant and rapid changes and requires healthcare organizations to struggle for the advancement to be globally competitive. Like any other service or product, healthcare industry is also competing in highly intense competitive environment. Value of Healthcare services includes access to effective, adequate and efficient care as a basic requirement of any health care system (Porter, 2010). Improved quality with access to affordable healthcare service is the value based goal of the system.

Pakistan as a developing country is facing problems in its healthcare system. To achieve global competitiveness, developing a robust model for healthcare services is crucial both in public and private sectors hospitals of Pakistan. This involves the appropriate measurement of the quality dimensions, the gaps analysis and adequate recommendations for policy makers to uplift the entire system. An exclusive scale named SERVQUAL is modified and used to measure the quality of services in hospitals of Peshawar.

Quality in healthcare service delivery can help the system to outperform as that not only satisfy the customer but make them brand loyal. The aim of this study is to comparatively examine and rank the excellence of provided healthcare services in public and private sector hospitals of District Peshawar, KP, Pakistan and based on results, to suggest some milestones to be achieved making the competitive services.

REVIEW OF LITERATURE

Satisfaction is a general attitude based on customer experience and is a basic reason in formation of customers' buying behaviour in future (Mittal & Kamakura, 2001). Customer satisfaction is ones choice or rejection resulting from assessment based on a product or service's perceived and expected performance (Kotler & Armstrong, 2003). Hence, satisfaction is precisely related to consumers' expectation and experience, therefore,

Customer satisfaction = Customers Expectations – Actual Perceived Services

Quality is a driving force for improved competitiveness, customer satisfaction and profitability (Edvardsson, 1992). Service quality is the ability of an organization to meet or exceed needs, requirements and expectations of consumers (Parasuraman et al. , 1988; Carman, 1990 ; Haywood-Farmer, & Stuart, 1990 ; Bolton & Drew, 1991; Schvaneveldt, Enkawa, & Miyakawa, 1991 ; Boulding et al, 1993 ; Mattsson, 1994a ; Mattsson, 1994b; Pitt & Jeantrout, 1994; Dotchin & Oakland, Part 1, 2 & 3, 1994) as well as to maintain its competitive advantage (Yoo & Park, 2007). Service quality is known as a worthy marketing strategy for firms to achieve uniqueness of services (differentiation) and consumer satisfaction providing value (Levitt 1981, Parasuraman et al. 1985).

Quality is described as fulfilling the wants (expectations) of customer with possible low cost, preventions in procedures, timely delivery, zero-defects product and value addition to customers (Crago, 2000). Global Corporations are now considering service quality for customer satisfaction as a prime strategic value to win market share and to reach competitive advantage (Carlzon, 1989; Ghobadian, Speller, & Jones, 1994).

Firms with higher service quality in meeting customers' needs are more profitable thereby more competitive (Lewis, 1989). Service quality leads to customer satisfaction (Kotler 1988, Kaspar & Lemmink 1989, Bolton & Drew 1991).

Healthcare is defined as a set of services offered to individuals, families or communities in a society by respective professionals for advancement in the desired outcomes of healthcare system (Last, 1993; Azam et al., 2012). In a highly competitive healthcare environment globally, public and private hospitals are focusing on service quality in terms of financial (costs, revenues, profitability) and non-financial performance (quality of their services), to gain competitiveness (Moulin 2004). Like all services, having intangible and heterogeneity nature of healthcare, the degree of excellence is difficult to measure as contributors are different with respect to their interests and integrity. (Joss & Kogan,1995; Zabada et al., 1998; Rohlin et al., 2002; Naveh & Stern, 2005; Eiriz & Figueiredo, 2005; McLaughlin & Kaluzny, 2006; Craig et al., 2007; Ladhari, 2009).

"A robust health system provides the right services, both personal and population based, in the right places, at the right times to all of those who are in need of those services, from both public health and personal health perspectives, included all preventive, promotable, remedial, rehabilitative and palliative services" (WHO, 2010).

Table 1: Research contributions by various authors explaining dimensions of services-quality

Dimensions of Healthcare Service-Quality	Author & Year of Publication
"technical quality and functional quality"	(Donabedian, 1980; Gronroos, 1984; Andaleeb, 1998; Yousapronpaiboon & Johnson (2013)
"patient confidence, business competence, treatment quality, support services, physical appearance, waiting time and empathy"	Reidenbach & Smallwood 1990; Vandamme & Leunis 1993; Tomes & Ng 1995
"Physical facilities like food, noise, room temperature, privacy, cleanliness and parking are found important in quality healthcare".	Lam (1997).
"Overall attitude and behavior of employees, communication, responsiveness, courtesy, cost and cleanliness in hospitals"	Hasin et al.(2001).
"patient fear and anxiety, patient's appreciation of convenient and punctual service, involvement of patients in treatment"	Baldwin and Sohal (2003)
"Dimensions like communication, tangibles, empathy of nursing staff, assurance, responsiveness of administrative staff, security and physician responsiveness."	Boshoff and Gray (2004)
"Patients admission process, physician care, nursing care, compassion to family/friends, pleasantness of surroundings and discharge process."	Otani and Kurz (2004)
"value added services like patient satisfaction in a pre-operative assessment like waiting time, interior of the waiting room with magazines, television set"	Pakdil and Harwood (2005)
"Medicine availability, medical information, staff behavior, doctor behavior and clinic infrastructure"	Rao et al.(2006)
"infrastructure, personnel quality, process of clinical care, administrative processes, safety indicators, overall experience of medical care and social responsibility"	Duggirala et al. (2008)
"infrastructure, personnel quality, process of clinical care, administrative procedures, safety indicators, hospital image, social responsibility, and Trustworthiness of the hospital"	Padma et al.(2009)

"Eight dimensions – performance, features, reliability, conformability, durability, serviceability, aesthetics, and perceived quality."	Garvin (1988)
"technical (delivering core services & outcomes) and functional (healthcare service delivery process)."	Gronroos (1984)
"availability, accessibility, acceptability, appropriateness, affordability, competency, timeliness, privacy, confidentiality, empathy, attentiveness, caring, responsiveness, accountability, accuracy, reliability, comprehensiveness, continuity, equity, environment, amenities and facilities, Efficacy, effectiveness, efficiency, ensuring safety and security, reducing mortality and morbidity, improving quality of life, patient health status and satisfaction."	(Donabedian, 1980; Leebov et al., 2003; Lohr, 1991; Øvretveit, 1992; and Schuster et al., 1998

Technical quality in the health care environment is the technical accuracy of the diagnoses and procedures, measurable using various techniques (Kudsk et al 2003) While functional quality denotes the mode of delivery of the healthcare service and is generally the primary factor of patients' perceptions for quality measurement (Kovner & Smits 1978; Donabedian 1980, 1982).

Service organizations have various similarities in the process of service delivery within and through industries. Based on such commonalities, a tool called as SERVQUAL, can be used to measure the quality level of various kinds of services in industries (Parasuraman et al 1986; 1988; 1991). SERVQUAL is more planned to measure functional quality as compared to technical quality of specific industry including healthcare, where the customers perceive functional quality more (Ware & Snyder 1975; Casarreal, Mills, & Plant 1986; Bopp 1990;).

SERVQUAL measurements (Parasuraman et al., 1985, 1988, 1991) are proposed and applied for the measurement of hospital service quality required for policy makers (Mostafa, 2005; Wicks & Chin, 2008; Bakar et al., 2008a; Hu, Lee & Yen, 2010). SERVQUAL can help researchers to identify general principles of functional service quality and to test the effectiveness of the model.

METHODOLOGY

The population of the study consists of respondents (patients) from public and private sector hospitals of Pakistan. The sample framework is confined to the public and private sector hospitals located in District Peshawar, Khyber Pakhtunkhwa. The sample (size of n=500) consists of convenient based selected patients, both male and female, who at least once stayed for night in those hospitals (in-ward patients) as well as those having frequent visits to get healthcare services. The data collection from patients was obtained after verbally informed consent. The primary data is collected using questionnaire to get the responses of patients' perception and expectations of service quality provided by the hospitals. The quality dimensions are evaluated using a five-points "Likert-Type Scale" valued from "strongly agree" to "strongly disagree". After deducting average expectation [E] of each dimension from perception [P] about it, the difference (Gap Score) is determined to know the shortfalls in reaching expected excellence. The resulted negative value indicates the low quality of services [P] offered to patients as compared to their expectation from the provider [E] and vice versa. The 5-points on Likert scale helped a reliable inquiry into extents of service quality. The study assumes gap(s) between patients' expectations and degree of services offered by the providers in both the sectors of the industry. Therefore, the hypotheses of the study are as:

H1: Both public and private hospitals do not meet patients' expectations sufficiently, hence quality gap(s) exist in various dimensions.

H2: Quality of services at private hospitals are better than public hospitals in Peshawar.

Results and Interpretations

A total sample of 500 patients consists of 54% (n=270) females and 46% (n=230) males. The selected patients were ranging in age groups as: 1=18-25 years, 2=26-33 years, 3=34-41 years, 4=42-49 years and 5= 50+ years. Convenient based selected respondents, both out-ward and in-ward patients in public and private hospital of Peshawar have to answer a modified version of the SERVQUAL instrument. The Cronbach alpha test is conducted to check the reliability of the modified instrument and is calculated as α=0.92 that shows good enough internal consistency among the scales.

Table 2: Reliability study of the modified SERVQUAL for Hospitals in Peshawar

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items	Sample size
0.921	0.951	43	500

Table 3: Demographics of the respondents (Gender Distribution)

Gender	Frequency	Percentage
Male	230	46%
Female	270	54%
Total	500	100%

Table 4: Demographics of the respondents (Age Group Distribution)

Age group	Frequency	Percentage
18-25	38	7.6%
26-33	40	8%
34-41	89	17.8%
42-49	100	20%
50+	233	46.6%
Total	500	100%

Reponses of the sample of 500 patients from 10 hospitals were analysed as:

a. Arithmetic Mean of expectation and perception related statements of each dimension is calculated.

a. Weighted Average Mean of each dimension is calculated both for expectation and perception

b. The gap score was determined by deducting perception values from expectation values.

c. Mean Scores of perception and expectation for each dimension of SERVQUAL Public and Private Hospitals are compared.

For public hospitals as in Table 5, the average calculated expectation scores of 'tangibles' (4.40), 'responsiveness' (4.50), 'safety & trustworthiness' (4.32), 'empathy' (4.12), 'process of healthcare' (4.56) and 'administrative procedures' (3.82) describe the patients' high level of expectations from their service providers (hospitals).

Table 5: Scores of Patients' Perception and Expectation about Healthcare Service Quality Dimensions in Public Hospitals of Peshawar

Quality Analysis of Public Sector Hospitals			
Dimensions	**Expectation Score***	**Perception Score****	**Gap**
Tangibles (Physical) Aspects	4.40	2.16	2.24
Responsiveness	4.50	3.1	1.40
Safety & Trustworthiness	4.32	2.6	1.72
Empathy	4.12	1.85	2.27
Process of Healthcare	4.56	2.12	2.44
Administrative Procedures	3.82	2.80	1.02
Mean Value of Scores	**4.29**	**2.44**	**1.85**

* Average Expectation score of each dimension ** Average Perception score of each dimension

The expectation score of 'process of healthcare' dimension is the highest highlighting the chief importance for the patients. Whereas the same dimensions of quality are perceived by the patients after benefiting from the services as 2.16, 3.1, 2.6, 1.85, 2.12 and 2.80 respectively, explaining prominent differences from expectations of the patients. The huge gap is found for the dimensions “process of healthcare” (2.44) followed by “empathy” (2.27) and “physical aspects” (2.24) describe the low quality of services perceived by patients, as compared to their expectations.

For private hospitals as in Table 6, the average calculated expectation scores of 'tangibles' (4.56), 'responsiveness' (4.64), 'safety & trustworthiness' (4.82), empathy (3.89), process of healthcare (4.86) and administrative procedures (3.80) show comparatively more expectations from private hospitals as compared to scores of public hospitals.

Table 6: Scores of Patients' Perception and Expectation about Healthcare Service Quality Dimensions in Private Hospitals of Peshawar

Quality Analysis of Private Sector Hospitals			
Dimensions	**Expectation Score**	**Perception Score**	**Gap**
Tangibles (Physical) Aspects	4.56	3.86	0.7
Responsiveness	4.64	3.41	1.23
Safety & Trustworthiness	4.82	3.68	1.14
Empathy	3.89	2.85	1.04
Process of Healthcare	4.86	4.42	0.44
Administrative Procedures	3.80	3.20	0.6
Mean Value of Scores	**4.38**	**3.29**	**0.86**

* Average Expectation score of each dimension ** Average Perception score of each dimension

In private hospitals too, the expectation score of 'process of healthcare' dimension is the highest for the patients describes the importance of the dimension as major. The patients' perception scores for dimensions of quality are as: 3.86 for tangibles, 3.41 for responsiveness, 3.68 for safety & trustworthiness, 2.85 for empathy, 4.42 for process of healthcare and 3.20 for administrative procedures. The patients' perception scores are again low for private hospitals but are comparatively better than public hospitals. The calculated gap between patients' expectation and perception related to quality dimensions unfolding the existing differences but such differences are lesser than gap scores of public hospitals.

Table 7, summarizing the comparative position of public and private hospitals in Peshawar. In all the six dimensions, private hospitals in Peshawar are performing better than public hospitals based on patients' perceived quality of healthcare services. The overall average gap of all dimensions of quality for public hospitals is 1.85 which is greater than the overall average gap of private hospitals 0.86. The results show a comparatively better performance of private sector hospitals.

Table 7: Comparison between average gap scores of Public and Private Hospitals in Peshawar

Comparison of Dimensions of SERVQUAL between Private and Public Hospitals							
Hospitals	**Tangibles (Physical) Aspects**	**Responsiveness**	**Safety & Trustworthy**	**Empathy**	**Process of Healthcare**	**Administrative Procedures**	**Total of Mean Scores**
Public Hospitals	2.24	1.40	1.72	2.27	2.44	1.02	**1.85**
Private Hospitals	0.7	1.23	1.14	1.04	0.44	0.6	**0.86**

Gap score Comparison	**1.54**	**0.17**	**0.58**	**1.23**	**2.00**	**0.42**	**0.99**
Better Performance /less gap	Private Hospitals	Private Hospitals	Private Hospitals	Private Hospitals	Private Hospitals	Private Hospitals	Private

Highest gap is found for the dimension 'process of healthcare' (2.0), indicating the massive difference of services that patients are receiving and what they are expecting from their providers in public hospitals compared to private sector hospitals. The second major gap is found for tangibles of hospitals including equipments, machinery, infrastructure and related facilities.

CONCLUSIONS

The outcomes of the study presenting a picture of healthcare services quality in Pakistan, a country with a low rank listed in Human Development Index (HDI Report, 2014). The instrument used in the study is a clear and detailed way of investigating the expectation and perception of patients (customers) regarding quality level of service providers' offerings. It is found that patients have comparatively higher expectations from private sector may be due to paying relatively higher cost(s). Although the numeric results of private hospitals are better than public in the study, still there is a need for improvements and bridging up the gaps. The findings suggest continuous improvements using participation of patients' feedback in the process of developing modern healthcare services along with related infrastructure fully equipped with facilities. A regular feedback from patients regarding their expectations from the services provided is suggested as critical specifically in public hospitals to introduce advancements in the system. Further, the value-added rewards and facilities to healthcare workforce can help to improve their responsiveness and empathetic attitude towards patients. The findings have significant hints for all the major stakeholders of private and public hospitals including owners, managers, government monitoring authorities, academics and other associates in the healthcare services. A developing country like Pakistan, with scarcity of resources and having lowest position in global HDI ranking, needs a lot of efforts in developing a robust healthcare system both in public and private hospitals. The international systems like World Health Organization (WHO) ,Canadian Healthcare, Scandinavian Health care etc. can be benchmarked and adopted. As the literature revealed, SERVQUAL scans the functional aspect of quality of services more than the technical. There is a serious need for focusing on both functional and technical aspects of healthcare service quality in Pakistan.

The study suggest researchers to replicate similar inquiry in all cities of Pakistan to bring overall improvements in entire healthcare system at national level without any inequality and discriminations. Further the study suggests the investigation into the role and quality of stakeholders specially owners, managers and administrators in enhancing the quality of healthcare services at competitive level.

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