

Impact of Health Service Quality on Patient Loyalty at King Khalid University Hospital in Riyadh, Saudi Arabia

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2018/39993

Editor(s):

(1) Fang Xiang, International Business School, University of International and Business Economics, China.

Reviewers:

(1) Darmesh Krishanan, Management and Science University, Malaysia.

(2) Anthony Wong, School of Business and Hospitality Management, Caritas Institute of Higher Education, Hong Kong.

Complete Peer review History: <http://www.sciencedomain.org/review-history/23527>

Original Research Article

Received 11th December 2017

Accepted 22nd February 2018

Published 9th March 2018

ABSTRACT

Aims: Severe competition exists among the medical service providers at Saudi Arabia. The competition has propelled hospitals to look beyond the idea of providing just a service and has oriented them to consider the customer loyalty, which stems out of service quality, as an important competitiveness factor. Large-sized hospitals can demonstrate successful performance when they satisfy the quality of medical services expected by patients. This paper investigates the influence of medical services quality on the extent of patient loyalty.

Methodology: For the purpose of this research, an empirical investigation was conducted nearby 293 patients of King Khalid University Hospital, within the period from 01-03-2016 until 30-04-2016. A questionnaire was designed as an instrument to collect the data. Hypotheses were tested using a Multiple Regression Analysis with SPSS.

Results: Findings showed that medical service quality affects positively patient loyalty, especially the service tangibility dimension perceived as the most significant by patients.

Conclusion: Based on the results of this study, marketing implications have been formulated for

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large-sized hospitals to offer patients effective medical services. A continually improvement of tangible aspect of healthcare services is important but not sufficient, it should be supported by an implementation of a marketing information system to enhance healthcare services quality at lower cost.

Keywords: Healthcare; service quality; patient loyalty; public hospitals.

1. INTRODUCTION

The services sector is an important component of the economies. This sector is a driving force for economic and social growth of the community. The most prominent service organizations are hospitals and health centers that provide health care for individuals and groups of society, whether these services are preventive, therapeutic or surgery. Therefore, it becomes necessary to adopt the new developments in science and technology at hospitals and health centers to improve patient care, to satisfy their needs and meet their aspirations in term of quality [1]. It means that hospitals and health centers survival and prosperity depend on their ability to implement the new medical service quality [2]. Increasing quality creates a strong relationship with the customers, which could be consequently followed by a strong loyalty toward the service provider, is the key factor for enhancing the market share and gain a sustainable competitive advantage [3]. Retain loyal patients via quality enhancement is less expensive than attracting new ones and it's become crucial for health organization [4,5]. In this sense, the study will attempt to answer the following question: What is the impact of Health Services Quality in the degree of Patient Loyalty in King Khalid University Hospital?

1.1 Review of Literature

1.1.1 Health service quality

For establishing and maintaining a cost-effective customer, service quality is considered as a key factor [6]. Due to the intangibility of service customers feel quite hard to assess it. However, service can be examined based on the attitude of the people (employees and patients) involved in the process transaction. Based on theory expectation-dis-confirmation, researchers developed models to evaluate service quality [7]. SERVQUAL is a multi-dimensional research instrument, designed to capture consumer expectations and perceptions. If performance perceived exceeds expectation, then the customers feel satisfied, if not it leads to

dissatisfaction [8]. Thereby service quality is essential to establish customer-oriented market since it acts as a major determinant of customers' loyalty and a driver of corporate marketing and financial performance [2].

Although it is widely acknowledged that there is a need for medical service quality indicators and their impact on patient loyalty and satisfaction, very little research in this area exists [9]. Healthcare service quality is more difficult to define and measure than in other sectors [10]. This difficulty comes from the healthcare industry characteristics (intangibility, heterogeneity and simultaneity), the existence of participants with different interest (patients, medical staff and managers) and ethical considerations [11,10]. In general, quality of health services has tow axes. The technician axis includes the applying of the technical science, health and medical technology in the diagnosis and treatment. While the human axis or the functional quality refers to the manner in which the healthcare service is delivered to the patient. It includes meeting the human needs of the patient such as kindness, respect and providing the necessary information [12,13]. It's difficult that patients evaluate the technical quality of a healthcare service, so functional quality is considered as the primary determinant of quality perception [14,15,16].

Health service quality from professional and medical perspective is 'the application of medical science and technology in a manner that maximizes its benefit to health without correspondingly increasing the risk' [17]. From the administrative perspective, as an institution with a social responsibility, hospital try to use the available resources to achieve its obligations to patients and to preserve the safety of health. Quality of health service is the 'provision of care that exceeds patient expectations and achieves the highest possible clinical outcomes with the resources available [18]. From the point of view of the patient, the quality of health service is the way to obtain the result. Patients perceive the quality of health services depends on the interest of workers, their kindness to the patients and the skills of the physician in the diagnosis and

treatment [19]. The level of health service quality is affected by the gap between the service perceived and that expected [8,2].

Based on the previous effort in health care services [20, 21, 22], and focusing on the measure of the functional quality rather than technical quality, Parasuraman and al. [23] have developed the SERVQUAL instrument that measures service quality. The construct differs from consumer satisfaction in a way that it defines expectations/perception gap as an enduring perception about the overall excellence of a particular firm. The five dimensions of service quality that are applicable to service-providing organization are [23]: (1) tangibility is the physical facilities, equipment, appearances and communication technology; (2) reliability is the ability to perform specific service in confidently and accurately; (3) responsiveness is the ability to assist the patient and provide emergency service; (4) assurance, which is the workers knowledge, politeness and their ability to deliver trust and safety to customers and (5) empathy is the level of care and personal attention to customers.

In the Arab world, some researchers have just described the level of the quality of health services. In KSA, the level of quality of health services provided in university hospitals needs improvement, specifically in areas of patient safety, clinical effectiveness and patient centeredness. Problems that affect negatively the quality of health services perceived could be due to failures of leadership, a requirement for better management and a need to establish a culture of quality [24]. An investigation of Kuwaiti healthcare service reveals that there is a negative gap: the expectations of the patients was higher than the quality of health services provided [25]. At the public Jordanian hospitals, studies have demonstrated that there is no gap between the health services expected and that are offered by the hospitals [26,27]. At King Abdullah University Hospital, there is a relative variation among the dimensions of health service quality on the level of health service offering in the sector from the perspectives of Jordanian patients. They were ordered respectively: tangibility, trust, reliability, empathy, and responsiveness [27]. In contrast, in the same context, results have shown that the quality of health services is low, but they confirm that quality prevailing in the hospital and health services is measured by objective characteristics. The service tangibility is the most

influential in the patient loyalty followed by responsiveness, reliability, assurance then empathy comes [28].

1.1.2 Patient loyalty

Loyalty is the process of keeping the customer as long as possible [29]. Trust is the basis of loyalty and customer's loyalty can transport profits to the organization [30]. Loyalty reduces patient defection and 'shopping' behavior among patients, then it reduces the cost of attracting new ones. Loyalty increases profitability of the firm over time [31,32,33]. In general, it's a complicated task to establish loyalty and then to keep regular loyal and satisfied customers because of their tendency to demand higher expectations over time. In contrast to other service providers, in medical care is more difficult to meet patient expectations because physicians can't easily accede to all patient requests [32]. Some authors, like Giesse, Penchansky and Kingstrom, present loyalty as different from satisfaction and consider it as an attitude [32]. In this perspective, loyalty is (1) a commitment to a provider, explained as a pattern of behavior and observed by a use of the same provider or of few number of providers; (2) a combination of psychological attachment to a provider, expressed by a strong desire to remain his or her patient, accompanied with a resistance to change and by a willingness to promote and defend that provider. Other researchers, such as Douglas, Anderson, Fisk and colleagues [32], consider loyalty as an intention. Here, loyalty is the intent to return to the same provider or to recommend the provider to other persons. To measure loyalty, Zeithaml and al. [34] performed a research across four different industries: computer manufacturer, retail chain, automobile insurer and life insurance. They developed a comprehensive, multi-dimensional framework of customer behavioral intentions in services including four main dimensions: word-of-mouth communications, purchase intention price sensitivity and complaining behavior. After a factor analysis on the 13-item scale, five dimensions were identified by the authors: loyalty to company, propensity to switch, willingness to pay more external response to problem; and internal response to problem. Bloomer and al. [35] re-examined dimensionality of this model across different service industries: entertainment, fast food, supermarkets and health care. They confirm the multidimensionality of service loyalty, but factor analysis extracted four, not five, distinct dimensions: Word-of-mouth, Purchase

intentions, Price sensitivity, and Complaining behavior. This finding corresponds with the initial categorization of customer loyalty items reported by Zeithaml et al. [34].

1.1.3 Impact of health service quality on patient loyalty

Previous studies related to the quality of health services and the loyalty in health organization confirm the strong relationship between these two concepts [36, 37, 38, 39, 40]. It found that patients feel more satisfied when they treated well by the hospital staff. Because of the high quality of service perceived patients are ready to re-experience, whether to receive the same treatment or different treatment, and they will advise their relatives and friends to receive treatment at this hospital [36]. Good treatment is one of the most powerful marketing strategy adopted by the hospital to obtain a high degree of patient loyalty [38]. A good treatment from hospital staff contributes effectively to attract patients and obtain their loyalty [37]. The high quality of service is capable to raise the level of patient satisfaction and thus get patients loyal. There is a relatively strong positive correlation between the quality of health service dimensions and indicators of satisfaction patient. It proved that the sympathy of the nursing staff affects positively the loyalty of patients [39].

The hospitals that provide high-quality services enhance the loyalty of their patients and that female patient are more sensitive to the quality of health service [40]. It's an evidence, that when the assessment of service quality is positive, the customer develops a favorable behavioral intention that reinforces his relationship with the provider, stimulate positive word of mouth and strengthen loyalty [41,42,43,43]. Therefore for healthcare marketing managers, it's more appropriate to build a strong quality of health services than use advertising [44].

H1: Health Service Quality has a positive impact on Patient Loyalty.

H1.1: Reliability has a positive impact on patient loyalty.

H1.2: Responsiveness has a positive impact on patient loyalty.

H1.3: Tangibility has a positive impact on patient loyalty.

H1.4: Assurance has a positive impact on patient loyalty.

H1.5: Sympathy has a positive impact on patient loyalty.

The aim of this study is to evaluate the structure of the hospital service quality construct from patient's perspective and determine the relative importance of quality dimensions in predicting the patient loyalty. The model relating the two concepts is presented in Fig. 1.

The research adopts the gaps' scale called Servqual to study the relationship between the health service quality and loyalty of patients. Servqual scale divided the quality of health services to 5 dimensions: tangibility, reliability, responsiveness, confirmation and empathy [23,36,39].

2. RESEARCH METHODOLOGY

2.1 Data Collection

It was relying on two types of sources of data collection. The secondary data has been collected by scanning literature. To collect the primary data, the researcher conducted a pilot study with some employees of Patients service, as well with the directors of hospitals and with some patients. The purpose of this pilot study is reviewing the dimensions of hospitals service quality provided and the dimensions of Patient Loyalty. The second step undertaken was to gather information through a questionnaire administrated to the patients.

2.2 Area of Study and Sample Size

The empirical investigation was conducted at King Khalid University Hospital in Riyadh - KSA, within the period from 01-03-2016 until 30-04-2016. Study Population consists of all patients' who received health care from the hospital at the time of conducting the field study. A convenience

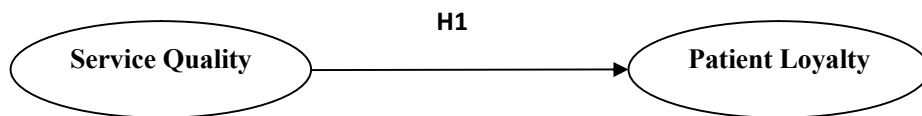


Fig. 1. The Framework relating service quality and patient loyalty

Source: Based on the review of literature.

sampling techniques are used to select patients. To gather valid, reliable and unbiased data from the patient sample, questionnaires were filled inside the hospital when patients completed their treatment. All questionnaires were self-administered to patients who agreed to participate in the study. The respondents were assured that their responses would be kept confidential and they were informed that the research was only for academic purposes. The questionnaire has been distributed to 373 patients, but only 293 of them were valid for statistical analysis.

2.3 Research Instrument and Analytical Tools

A questionnaire has been used as a tool to collect information. Scales were selected from the literature. Five-point Likert scales were used. The respondents were asked to rate their answers on the scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The quality of health services was measured by the SERVQUAL developed by Parasuraman and her colleagues [23]. In its original form, this instrument includes twenty-two items to measure five dimensions of the services quality

(Reliability, responsiveness, tangibles, assurance (confirmation), and empathy). This tool was designed to measure service quality using both the gap concept and service quality dimensions. It is based on the ability of the customers to evaluate a firm's services quality by comparing their perceptions of its services with their own expectations. In this study, only 15 statements were retained to assess the five dimensions of service quality [45] (Table 1). For assessing patient loyalty, in the context of a public hospital, the research focuses on how willing the patient is to recommend and say a good word-of-mouth about the hospital health services. A scale developed by Ziethmal and al. [34] and adapted by Bloemer and al. [35] was used. Several recent researches in retail banking sector [46], in automotive industry [47] and in health sector [48;49] have employed Zeithaml, Berry and Parasuraman scale to measure service loyalty. The scale demonstrated a good reliability and validity in assessing the service loyalty concept. Two dimensions Word-of-Mouth communication and complaining behavior were selected in this research. 7 statements cover these dimensions (Table 2). The data collected was analyzed by using the Statistical Package for Social Sciences (SPSS).

Table 1. Health service quality scale

Dimensions	Items
Tangibility	-Hospitals should have up-to-date equipment.(T1)
	-Hospitals' physical facilities should be visually appealing.(T2)
	-Hospital employees should appear neat.(T3)
Reliability	-Hospitals should provide their services at the time they promise to do so.(RE1)
	-When patients have problems, hospital employees should be sympathetic and reassuring.(RE2)
	-Hospitals should be accurate in their billing.(RE3)
	-Hospital employees should tell patients exactly when services will be performed.(RES1)
Responsiveness	-It is realistic for patients to expect prompt service from hospital employees.(RES2)
	-Hospital employees should always be willing to help patients.(RES3)
	-Patients should be able to feel safe in their interactions with hospital employees.(A1)
Assurance (confirmation)	-Hospital employees should be knowledgeable.(A2)
	-Hospital employees should be polite.(A3)
	-Hospital employees should get adequate support from their employers to do their jobs well.(A4)
	-Hospital employees should be expected to give patients personal attention.(E1)
Empathy	-It is realistic to expect hospitals to have their patients' best interests at heart.(E2)

Table 2. Patient Loyalty Scale

Dimensions	Items
Word-of-mouth	-Say positive things about XYZ to other people. (W1)
	-Recommend XYZ to someone who seeks your advice. (W2)
	-Encourage friends and relatives to do business with XYZ. (W3)
Complaining behaviour	-Switch to a competitor if you experience a problem with XYZ's service.(C1)
	-Complain to other customers if you experience a problem with XYZ's service. (C2)
	-Complain to external agencies, such as consumer organizations, if you experience a problem with XYZ's service. (C3)
	-Complain to XYZ's employees if you experience a problem with XYZ's service. (C4)

3. RESULTS

3.1 Scales' Dimensionality and Reliability

A pilot study was conducted wherein included 40 patients. The reliability was measured using the Cronbach's alpha coefficient (α) which indicates the level of internal items consistency: $0.6 < \text{Cronbach's alpha} < 0.8$ accepted in the exploratory study and $\text{Cronbach's alpha} > 0.8$ preferred in the confirmatory study [50]. The Cronbach's alpha coefficient was ranged from 0.759 to 0.898; thus, the scales used for this study were considered to be reliable [51]. The extraction of all the items is higher than 0.5 [50].

3.1.1 Health service quality scale

The factor analysis extracted five factors (Table 3). The Cronbach's alphas of the five dimensions confirmed the reliability of the scale (0.759 for the "Reliability", 0.818 for the "responsiveness", 0.891 for the "tangibles", 0.898 for the "confirmation" and 0.897 for the "empathy"). The fifteen items were loaded with the five factors and presented an adequate factor weight.

3.1.2 Patient Loyalty Scale

Only one dimension was extracted (Table4). The scale of Patient loyalty is one-dimensional. The factorial weights of the seven items that were associated with this construct were superior to 0.5. The Cronbach's alpha of the factor 0.808.

3.2 Hypothesis Analysis

A Multiple regression analysis was used to test the impact of every dimension of the health service quality on the patient loyalty (Table5). For testing the strength and existence of relationship among the dependant and independent variables, both R^2 and the adjusted R^2 in the

regression equation were considered. The result showed that there is a statistically significant effect of medical service quality provided in King Khalid University hospital on patient loyalty (Sig F= 0.000 <0.05). The value of R square indicates that the five predictors (Reliability, responsiveness, tangibles, confirmation, and empathy) explained 79.3 % of the variation of Patient loyalty. The regression model is statistically significant

Table 3. Health service quality dimensionality and reliability

Dimensions	Items	(α)
Tangibility	(T1) (T2) (T3)	0.891
Reliability	(RE1)(RE2)(RE3)	0.759
Responsiveness	(RES1)(RES2)(RES3)	0.818
Assurance (confirmation)	(A1) (A2) (A3) (A4)	0.898
Empathy	(E1) (E2)	0.897
Coefficient alpha for the overall scale (5 dimensions)		0.866

Table 4. Patient loyalty dimensionality and reliability

Dimension	Items	(α)
Patient loyalty	(W1)	0.808
	(W2)	
	(W3)	
	(C1)	
	(C2)	
	(C3)	
	(C4)	

Impact of Reliability on Patient loyalty: Reliability dimension has a significant and positive impact on patient loyalty (Bêta=0.408 , T = 4.598 , Sig T=0.000 <0.05). H1.1 is supported.

Table 5. Impact of health service quality dimensions on patient loyalty

Dimensions	Ranking	Beta values (b)	T-value	SIG.
Reliability	5	0.408	4.598	0.000
Responsiveness	2	2.735	7.389	0.000
Tangibility	1	4,826	8.906	0.000
Assurance	3	2.555	8.073	0.000
Sympathy	4	0.909	6.237	0.000

Adjusted R² = 0.793 ; Sig F= 0.000 <0.05

Impact of Responsiveness on Patient loyalty: responsiveness dimension has a significant and positive impact on patient loyalty (Bêta= 2.735, T = 7.389 , Sig T=0.000 <0.05). H1.2 is supported.

Impact of Tangibility on Patient loyalty: Tangibility dimension has a significant and positive impact on patient loyalty (Bêta= 4,826, T = 8.906, Sig T=0.000 <0.05). H1.3 is supported.

Impact of Assurance on Patient loyalty: Assurance dimension has a significant and positive impact on patient loyalty (Bêta= 2.555, T=8.073, Sig T=0.000 <0.05). H1.4 is supported.

Impact of Sympathy on Patient loyalty: Sympathy dimension has a significant and positive impact on patient loyalty (Bêta= 0.909, T=6.237, Sig T=0.000 <0.05). H1.5 is supported.

Findings confirm that health service quality has a positive impact on patient loyalty level. H1 is supported. Tangibility is the most influential on patient loyalty (Bêta= 4,826) followed by the responsiveness, assurance, empathy and reliability who comes with the lowest impact (Bêta=0.408).

4. DISCUSSION AND RECOMMENDATION

This study provided the opportunity to consider the question that whether the service quality perceived by the patients had any influence on their loyalty towards the hospital. Quality of Health Services has a positive impact on patient loyalty. This outcome supports the results of previous researches [36,37,38,39,40,41,42,43, 34].

Patients of King Khalid University Hospital can be divided into groups according to their loyalty level. Hierarchical cluster analysis has classified patients according to their level of loyalty.

Patients were distributed in three categories: 20.13% with a high level of loyalty, 64.84% with an average level of loyalty and 15.01% with low level of loyalty. This division might be useful and used as an indicator of the nature of the relationship between the hospital and its patients, especially in the long term. The hospital can adopt the appropriate strategies of each group of patient. Patients with high level of loyalty promote the hospital. King Khalid University Hospital managers should attribute specific programs toward them to reinforce their loyalty such as clubs membership card including VIP services. The proposed strategy for this category of patient is partnership strategy. Toward patient with middle and low level of loyalty, the hospital managers should focus especially on the tangibility, responsiveness and assurance dimensions of the quality perceived. Use of an effective communication about the advanced physical facilities and the technology used in appointment management, enhance the assistance of the patient in early stage and establish trust are actions that can improve the image of the hospital and then boost patient loyalty.

Results demonstrate that the quality service dimensions can be classified by the importance of their impact on patient loyalty. The most significant dimension is the tangibility. This outcome is consistent with previous studies [28,27] but contradicts the finding established by a number of researches where the empathy dimension had the greatest influence on patient satisfaction [52] or where the environment quality of the hospital has the smallest effect on the patient loyalty compared with the other quality dimensions [53,54,39,55]. Therefore, it's essential to pay attention to the King Khalid Hospital tangible aspects. Modern buildings and place, advanced equipment and technologies value the healthcare offering. Tangibility aspect of healthcare services is the most important factor that reinforces the perception of the quality services provided and improve patient loyalty.

Responsiveness, assurance, empathy dimensions of the Quality are also important factors in building loyalty. Then, the King Khalid University Hospital efforts should in addition be focused on providing medical staff with skills and expertise, on offering accurate information about the review, responding to requests from patients and showing sincere interest in solving the problems that facing patient appointments. The hospital knowledge of patients profiles it's an important key to enhance patient loyalty. Building a marketing information system that works on gathering accurate information about patients can offer to the hospital huge advantages to establish strong relationship with patients without leading to additional costs.

5. LIMITS

The limitations of this study center on the fact that patient loyalty may change over time; hence, a cross-sectional design may not be suitable for tracking such variables. A panel data should be more appropriate. Additionally, other variables may be more important in determining patient loyalty than those presented in this study such as the relationship marketing or the relationship between physician and patient [56, 57]. Also, loyal customer may not be always satisfied, but satisfied customers are loyal [58], then the patient satisfaction it's an important antecedent to loyalty [59]. Finally, using a convenience sampling technique may limit the ability to generalize our results.

6. CONCLUSION

Health service quality dimensions are significant predictors of patient loyalty. Monitor service quality should be a priority for managers and practitioners in order to retain patients. The impact of service quality dimensions on patient loyalty offers a guide to develop a model of quality management in healthcare. Public hospitals can upgrade the quality of health service with an implementation of a modernization process, a continual training of human resources and an instauration of a communication system to gather patient feedback.

ACKNOWLEDGEMENT

This Research Project Was Supported By a Grant From The Research Center For The Humanities, Deanship of Scientific Research, King Saud University.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
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