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Service quality in health care setting

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Abstract

Purpose – This paper attempts to explore the concept of service quality in a health care setting.

Design/methodology/approach – This paper probes the definition of service quality from technical and functional aspects for a better understanding on how consumers evaluate the quality of health care. It adopts the conceptual model of service quality frequently used by the most researchers in the health care sector. The paper also discusses several service quality dimensions and service quality problems in order to provide a more holistic conception of hospital service quality.

Findings – The paper finds that service quality in health care is very complex as compared to other services because this sector highly involves risk.

Originality/value – The paper adds a new perspective towards understanding how the concept of service quality is adopted in a health care setting.

Keywords Quality, Service quality assurance, Hospitals

Paper type Research paper

Introduction

In past years, the concern for service quality reached unprecedented level in various sectors. Service quality has been increasingly identified as the main factor in distinguishing between services and building competitive advantage. However, health care services have a unique position among other services due to its very nature of the highly involved risks**.** This makes conceptualizing and measuring customer satisfaction and service quality in a health care setting more important and simultaneously more complex (Taner and Antony, 2006). In the health care sector, patients' perception of service quality greatly influences choice of health care provider (Woodside *et al.*, 1989). Quality has proven to be a vital element in the consumer's choice of hospitals (Lynch and Schuler, 1990). Thus, to achieve service excellence, hospitals must strive for "zero defections", retaining every customer that the company can profitably serve (Reichheld and Sasser, 1990). According to Lim and Tang (2000), "zero defections" require continuous efforts to improve the quality service delivery system. Nevertheless, quality will not improve unless it is measured since service quality is an elusive and distinctive construct. Its intangible, variable and inseparable characteristic is unique to services (Zeithaml *et al.*, 1990).

Service quality

Many definitions of service quality revolve around the identification and satisfaction of customer needs and requirements (Cronin and Taylor, 1992; Parasuraman *et al.*, 1988,

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1985). Parasuraman *et al.* (1985) argue that service quality can be defined as the difference between predicted, or expected, service (customer expectations) and perceived serviced (customer perceptions). "Expectations" are the wants of the consumers that they feel a service provider should offer. "Perceptions" refer to the consumers' evaluation of the service provider (Lim and Tang, 2000). Research divides service quality into two categories: technical quality and functional quality (Gronroos, 1984; Parasuraman *et al.*, 1985; Lewis and Mitchel, 1990; Lewis, 1991). The distinction between these two aspects is extensively accepted (Asubonteng *et al.*, 1996; Babakus and Mangold, 1992; Parasuraman *et al.*, 1985, 1991) although diverse terminology is occasionally used.

Technical quality refers to the basis of technical accuracy and procedures. In health care context, it is defined on the basis of the technical accuracy of the medical diagnoses and procedures or the compliance of professional specifications (Lam, 1997). Technical quality also refers to the competence of the staff as they go about performing their routines. These include the clinical and operating skills of the doctors, the nurses' familiarity with the administration of drugs and the laboratory technicians' expertise in conducting tests on blood samples (Tomes and Ng, 1995).

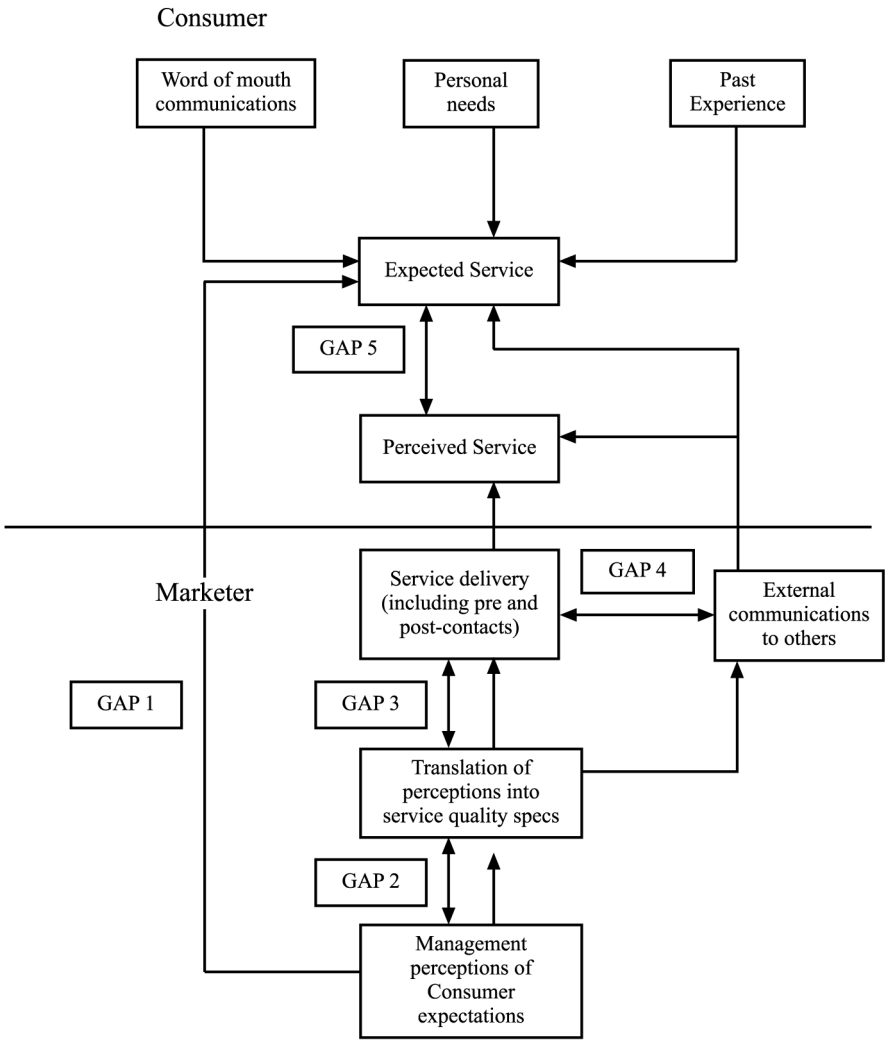
Functional quality refers to the manner in which service is delivered to the customer. In health care setting, patients usually rely on functional aspects (facilities, cleanliness, quality of hospital food, hospital personnel's attitudes) rather than technical aspects when evaluating service quality. Research has shown that technical quality is not the useful measure for describing how patients evaluate the quality of a medical service encounter (Bowers *et al.*, 1994). Even though technical quality has high priority with patients, most patients do not have the knowledge to evaluate the quality of the diagnostic and therapeutic intervention process effectively. In fact, they are unable to evaluate the technical quality due to lack of expertise (Babakus and Boller, 1991; Lanning and O'Connor, 1990). Soliman (1992) found that non-technical interventions influenced patients' ratings on the overall quality of health care and perhaps more important than technical aspects. Although various techniques such as peer review or medical protocols have been recommended for evaluating technical quality, this information is not generally understood or available to patients. As a result, patients base their evaluation of quality on interpersonal and environmental factors, which medical professionals have regarded as less significant (Lam, 1997). In such cases, most patients cannot distinguish between the "caring" (functional) performance and the "curing" (technical) performance of medical care providers (Ware and Snyder, 1975).

When a patient receives medical treatment, functional quality produced will influence his or her perceptions of service quality. This is due to the patient's comparison of his or her perception of the medical service encounter experience with his or her pre-encounter expectations (Gronroos, 1984). Thus, a medical service encounter achieves quality in perception when it meets or exceeds the level of patients' expectations (Lam, 1997). The perception of service quality could occur at multiple levels in an organization, e.g. with the core service, physical environment, interaction with service providers and others. On the other hand, the customer's overall satisfaction with the services organization is based on all the encounter experiences of the customers with the organization (Sureshchandar *et al.*, 2002).

A conceptual model of service quality

The well-documented "service quality" model of Parasuraman *et al.* (1985) is widely used as a conceptual framework for measuring service quality delivery in health care services (see Figure 1). The service quality model indicates that consumers' quality perceptions are influenced by a series of four distinctive gaps occurring in organizations. These gaps on the service providers' side, which impede delivery of services that consumers perceive to be of high quality, are:

(1) Differences between patient expectations and management perceptions of patients expectations.



Source: Parasuraman *et al.* (1985)

Figure 1.
Conceptual model of service quality

(2) Differences between management perceptions of patient expectations and service quality specifications.

(3) Differences between service quality specifications and service actually delivered.

(4) Differences between service delivery and what is communicated about the service to patients.

(5) Differences between consumer expectations and perceptions, which in turn depends on the size and direction of the four gaps associated with the delivery of service quality on the service provider's side.

Service quality occurs when expectations are met (or exceeded) and a service gap materializes if expectations are not met (Parasuraman *et al.*, 1985). The gap score for each statement is calculated as the perception score minus the expectation score. A positive gap score implies that expectations have been met or exceeded and a negative score implies that expectations are not being met. Gap scores can be analysed for individual statements and can be aggregated to give an overall gap score for each dimension. According to the Accounts Commission for Scotland (1999a), SERVQUAL results can be used in varied ways:

- understanding current service quality;
- comparing performance across different customer groups;
- comparing performance across different parts of the service;
- understanding the internal customers;
- comparing performance across services; and
- assessing the impact of improvement initiatives.

However, Conway and Willcocks (1997) propose a conceptual model, incorporating many of the relevant features of service quality identified in the literature, which are applied in the health care context. This model describes how patient perceptions are formed and developed. The proposed model shown in Figure 2 encompasses four key elements, namely, expectations; experience; expectation confirmation; and degree of patient satisfaction. In this model, patient satisfaction/dissatisfaction occurring in a single transaction feeds into an element known as "influencing". Many of these may independently influence patient expectations at the outset, but the degree of patient satisfaction experience also influences patient expectation in the future. Hence, the process continues as a "loop".

Dimensionality of health care quality

Over the years, several models of service quality have evolved in health care setting. SERVQUAL has been widely applied and frequently reported in the literature. The development of the SERVQUAL scale by Parasuraman *et al.* (1988) provided an instrument for measuring functional service quality applicable across a broad range of services. There are five dimensions of service quality that are applicable in general to a service-providing organization. These dimensions are:

(1) *Tangible*: physical facilities, equipment and appearance of personnel.

(2) *Reliability*: ability to perform the promised service reliable and accurately.

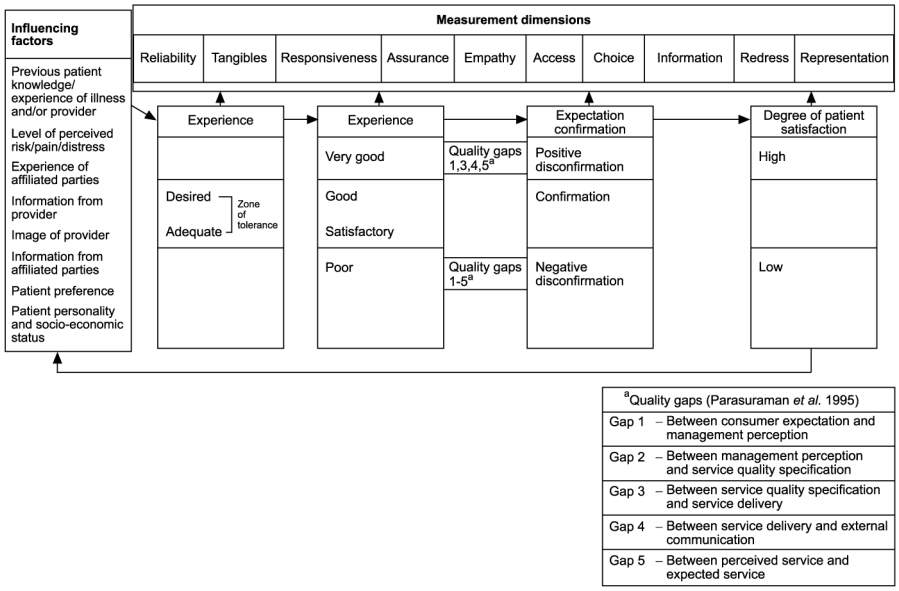


Figure 2.
A conceptual model, which applies features of service quality to the health care context

(3) *Responsiveness*: willingness to help customers and provide prompt service.

(4) *Assurance*: knowledge and courtesy of employees and their ability to inspire trust and confidence

(5) *Empathy*: caring, individualized attention provided to customers.

In its original form, SERVQUAL contains 22 pairs of Likert-type items. Each statement appears twice. One measures customer expectations of a particular sector. The other measures the perceived level of service provided by an individual organization in that sector. A seven-point Likert scale ranging from "strongly agree" (7) to "strongly disagree" (1) accompanies each statement.

The SERVQUAL scales has been used in a wide array of studies in healthcare to assess customers' perceptions of service quality in a number of service categories for example: patient satisfaction (Bowers *et al.*, 1994), acute care hospital (Carman, 1990); independent dental offices (McAlexander *et al.*, 1994); at AIDS service agencies (Fusilier and Simpson, 1995); public university health service (Anderson, 1995) with physicians (Brown and Swartz, 1989); (Walbridge and Delene, 1993) and nurses (Uzun, 2001); hospitals (Babakus and Mangold, 1992; Vandamme and Leunis, 1993; Youssef *et al.*, 1995; Alakavuk, 1996; Sewell, 1997; Camilleri and O'Callaghan, 1998; Tengilimoglu *et al.*, 1999; Lim and Tang, 2000; Taner and Antony, 2006).

The advantages of SERVQUAL include the following (Buttle, 1994):

- it is accepted as a standard for accessing different dimension of service quality;
- it has been shown to be valid for a number of service situations;
- it has been known to be reliable;

- the instrument is parsimonious because it has a limited number of items. this means that customers and employers can fill it out quickly; and
- it has a standardized analysis procedure to aid interpretation and results.

Even controversies regarding the validity and reliability of SERVQUAL (Teas, 1994; Newman, 2001) arises, the application of SERVQUAL can be found in healthcare. Some researchers have modified the SERVQUAL dimensions to fit their research purposes. Lim and Tang (2000) add in "accessibility/affordability" while Tucker and Adams (2001) introduce "caring and outcomes". In the case of Johnston (1995), he sees the need to increase SERVQUAL to 18 dimensions but Reidenbach and Sandifer-Smallwood (1990) differ in that they suggest that it is necessary to reduce it from ten to seven dimensions; "patient confidence", "empathy", "quality of treatment", "waiting time", "physical appearance", "support services" and "business aspects". Several authors have derived measurement scales, which attempt to quantify the quality of service provided by a hospital (Hulka *et al.*, 1970; and Fitzpatrick, 1991). Hulka *et al.* (1970) used statements based on just three dimensions: "personal relationship", "convenience" and "professional competence". Thompson (1983) based his work on seven dimensions: "tangible", "communications", "relationships between staff and patients", "waiting time", "admission and discharge procedures", "visiting procedures" and "religious needs" while Baker (1990) concentrated on "consultation time", "professional care" and "depth of relationship". Other researchers, Tomes and Ng (1995) conducted a content analysis of in-depth interviewing with a total of eight dimensions and renamed the dimension as "empathy", "understanding of illness", "relationship of mutual respect", "dignity", "food", "physical environment" and "religious needs".

Camilleri and O'Callaghan (1998) consider the following dimensions appropriate in measuring hospital service quality such as "professional and technical care", "service personalization", "price", "environment", "patient amenities", "accessibility" and "catering". Andaleeb (1998) on the other hand, limits his set of variables to only five dimensions: "communication", "cost", "facility", "competence" and "demeanor". Jun *et al.* (1998), conducted focus group interviews, identify the following 11 dimensions: "tangibles", "courtesy", "reliability", "communication", "competence", "understanding customer", "access" "responsiveness", "caring", "patient outcomes" and "collaboration". Another five dimensions identified by Hasin *et al.* (2001) are "communication", "responsiveness", "courtesy", "cost" and "cleanliness". Yet, Walters and Jones (2001) introduce several elements to be measured in hospital service quality such as "security", "performance", "aesthetics", "convenience", "economy" and "reliability". John (1989) recommends four dimensions of health care service quality: "curing", "caring", "access" and "physical environment". Jabnoun and Chaker (2003) compare the service quality rendered by private to public hospitals in the UAE. They use the ten-dimension instruments: "tangibles", "accessibility", "understanding", "courtesy", "reliability", "security", "credibility", "responsiveness", "communication" and "competence". In similar term, Taner and Antony (2006) examine the differences in service quality between public and private hospitals in Turkey

Service quality problem in health care setting

In health care sector, the quality level of hospitals influences the consumer's choice of hospitals. In fact, Fleming (1991) proposed that improving the level of quality reduces

operating costs. In the process to control insurance costs, many businesses are approaching hospitals to improve quality (Burke, 1992). Moreover, Breedlove (1994) reports that hospital financial managers rely on the improvements of quality programs as a key to survival.

There are many problems associated with service quality in health care that can be categorized into three aspects: service elusiveness, employee diversity and interrelatedness (O'Connor *et al.*, 1988).

Service elusiveness

In the health sector, one of the main ingredients of the production process is the patient. According to Zeithaml (1984), it is not easy for consumers to understand the essence of service health products in their mind. It is because of intangibility nature of the service or service elusiveness. They may not know what they are getting until they no longer receive it (Armistead, 1985; Lewis and Booms, 1983). Service elusiveness urges consumers to pay attention to the more tangible aspect of a service in order to find some indication of its quality (Berry, 1980: Zeithaml, 1984). In fact, the provider can help consumers to understand the quality of a specific service by manipulating the tangible aspects such as service provider appearance, the physical services environment and the price of the service (Berry, 1980; Shostack, 1981).

Employee diversity

The health care sector has quality problems associated with the service characteristic of employee diversity (O'Connor *et al.*, 1988). This diversity enlightens how employees possess different skills and moods change in their performance in providing a service (Zeithaml, 1984). As such, providers play a vital role to maintain the variability of customer-employee relationship. According to Levitt (1972), discretion can be the enemy of standardization, order and service quality. In health care, discretion is widespread because of the highly customized and judgmental nature of the service (Lovelock, 1983). In a hospital setting, various opportunities are present for using the production line approach, including:

- the use of preset standard responses to telephone inquiries;
- online computer systems with up-to-date patient billing information; and
- strict protocols, such as those used by the emergency department's trauma team (O'Connor *et al.*, 1988).

Interrelatedness

Consumers are the main factor in determining the ultimate quality received upon consumption as well as production. Educating patients about the use of particular service helps them understand the service, making them alert in the production/consumption and improving their perceptions of a service because they help sustain its quality (O'Connor *et al.*, 1988).

Conclusion

The nature of health care setting encourages patients to demand the highest possible quality. In order to achieve this, it is essential to capture information on patient needs, expectations and perceptions (Drain, 2001; Accounts Commission for Scotland, 1999a)

because for "too long people have been made to fit the services rather than services being made to fit the people" (Scottish Executive Health Department, 2001b). As patients are unattainable to assess the technical quality of health care, the quality attributes associated with delivery of health care have been utilized by the patients. Thus, the measurement of hospitals' service quality has to be based on perceived quality rather than objective quality. It is because service quality is intangible, heterogeneous and its consumption and production occur in tandem (Lim and Tang, 2000).

It would be reassuring that service quality becomes the most critical consumer issue in health care setting. From various studies, SERVQUAL appears to be a consistent and reliable scale to measure heath care service quality. In principle, together with the information relative significance of service quality dimensions, it helps health care organization to identify where, and to some extent how, to improve the service they offered to patients. Given the importance of functional aspects of care, the SERVQUAL instrument has a useful diagnostic role to play in assessing and monitoring service quality in health care, enabling the organization to identify where improvements are needed from the patient's viewpoint.

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