



HEALTH CARE QUALITY MANAGEMENT: A SYSTEMATIC REVIEW ON DEFINITION AND EVALUATING METHODS

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Abstract

The main purpose for measuring service quality is undoubtedly to prepare the foundations for its management and continuous improvement. The definition of quality has always been difficult to define and different authors have given different definitions over time. Also, the defining elements of service quality have changed in different methods and authors. Determining its importance in various aspects of health care is also of particular importance. The data found from well-known databases such as “ScienceDirect”, “Scopus”, “Emerald”, “PubMed”, “Web of Science”, were used to review the literature on service quality and the main ways of evaluating it. Quality measurement is a very important part of improving health care delivery and helps focus many activities within the larger field of health care. Two of the most used methods to evaluate the quality of service SERQUAL and SERVPERF are compared in this paper, to extract the main differences between them, and the characteristics of each one. Although they have been widely used to assess health service quality, both have their limitations and restrictions. All these combined results show that the quality of service in the health service is far from being resolved and is still subject to great debate.

Keywords: *Quality management, Health care, Service quality, SERVPERF, SERVQUAL*



INTRODUCTION

Definitions of service quality in health care are constantly evolving. Initially, definitions and assessment of quality were under the purview of health professionals and health service researchers. However, there is an increasing tendency to recognize that the views of patients, the public and other important players in the field are also very important (Brook, Mc Glynn and Cleary 1996; Shaw and Kalo 2002). Based on the fundamental work done by Donabedian (1988), the first step in assessing service quality involves defining what is meant by quality. The definitions are different and the choice of each of them depends on the level of analysis performed or the specific context used. The 1990's are defined as the period where health service quality assessment received its main development. However, in order to understand the ways of evaluating it, it is important to give the different definitions that pertain to quality and then the different ways of evaluating it. Thus, for some individual's "quality" is related to the choice of hospital or doctor where they will be treated. For others it means easy access to specific treatments. Meanwhile, in recent years, special attention has been paid to the definition of health service quality so that everyone can work together to improve the delivery of this care (Margaret, 2001). Garvin (1983) further measures quality by counting the incidences (occurrences) of internal and external failures. Difficulties in measuring quality lay in the fact that many services are intangible. Since they are performances and not tangible objects, their evaluation is difficult to determine. Many services cannot be counted, measured, inventoried, tested before their provision and this leads to the difficulties of determining how consumers perceive these services, by seeing how they evaluate their qualities (Zeinhaml, 1988).

METHODOLOGY

This study used a qualitative research design. Out of 98 articles that were initially selected, only 76 of them were taken into consideration for this paper. The studies range in years from 1970 to 2020. The research instrument was a literature review, using keywords such as quality dimensions, review, literature, service quality, health care, SERVQUAL, SERVPERF. The literature was searched in databases such as "ScienceDirect", "Scopus", "Emerald", "PubMed", "Web of Science". The articles were selected based on content such as research on quality in the health service, the use of service quality assessment indicators, as well as the instruments used to assess quality of service. The aim was to see which indicators are more preferred and which of the two methods chosen for consideration in this paper, was more applicable to the health sector.

DIFFERENT THEORIES ON THE DEFINITION OF HEALTH CARE QUALITY

The most influential definitions are those defined by Donabedian (1980) and Institute Of Medicine, IOM (1990), respectively as "Quality of care is the type of care that is expected to maximize the well-being of the patient measured in all its aspects, as they are taken into consideration of the balance of expected losses and benefits of the care process in all its parts.", and "Quality of service the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge". WHO (2000) gives another definition for the quality of care as "The level of achievement of the internal goals of health systems for improving health and the response to justify the expectations of the population".

Donabedian also defines quality as: "the ability to achieve desired objectives, using reasonable means." He argues that before evaluating the quality of health care, it is necessary to determine whether or not financial costs should be part of the definition of quality, distinguishing two specifications, a "maximalist" and an "optimist" of it. Maximalist specification ignores financial costs and sets the highest expected level of quality to achieve the greatest improvements in health. On the other hand, contrary to this, according to the optimistic specification of quality, very expensive interventions that do not achieve large improvements in health should be avoided. Ledigo-Quigley (2011), would judge that according to Donabedian's approach, service quality should be judged from a maximalist perspective at first, while later the concept of values is chosen where the definition of quality is seen as the maximum that can be obtained from inputs that are available.

The definition of the IOM compared to that of Donabedian, includes and shifts the focus from the patient to the individual and the population, thus allowing the quality of care to be introduced as a notion in the field of promotion and prevention and not only in treatment and rehabilitation (Berwick, 2016). This definition also adds "desired outcomes" as part of it, in order to emphasize the need to consider the perspective of the recipient of the service, i.e. the patient, and by adding "in accordance with the latest professional knowledge", it means that service standards must also be clearly defined. The IOM emphasizes the importance of health products for patients and the population, although at any time they are limited by the qualifications and degree of medical knowledge. The last definition very clearly presents the measurement of customer needs and expectations as the main goal in quality improvement.

Butts and Rich (2013) posited that every American has a definition or personal view of high-quality health care. For some individuals, such a definition revolves around the ability to go to the provider or hospital of their choice; for others, access to specific types of treatment is paramount (Allen-Duck, et. al. 2017)

Harteloh (2003), in his study, made a summary of many concepts on quality and gave as a conclusion a concise definition "Quality is an optimal balance between possibilities realised and a framework of norms and values". This conceptual definition reflects the fact that quality is an abstraction that does not exist as a separate entity. It is built based on an interaction between important actors who agree on standards (norms and values) and components (possibilities). AHRQ (2006), defines quality of health care as "Doing the right thing, in the right way, for the right person, and achieving the best possible outcomes".

DETERMINING THE DIMENSIONS OF SERVICE QUALITY

Quality assessment has always been in discussion between different issues. The main question is whether quality can be measured. Many definitions have been made and there is still much effort in attacking and defending old definitions and formulating new definitions. Very importantly a definition almost always indicates the components and process of care assessment, as it includes the norms and values, judgments and defenses of the criteria that are used in the care assessment. For this reason, the criteria chosen to assess the quality of care, indisputably define the quality in an operational way, since the measurement of the process measures the criteria that have been chosen a priori to define the quality (Geyndt, 1995). The choice of dimensions for measuring the quality of care is a very important issue, as it has a great influence on the policies chosen for the progress of health care. For this reason, a very important challenge for any country, is to recognize these different but logical expectations and recommend them for a responsible and balanced health system (Shaw and Kalo 2002).

According to Lee and Jones, the quality of medical care exists when medicine is practiced only as determined by the leaders of the medical profession, thus suggesting an evaluation methodology for the quality of care in comparing the actions of doctors with those standards set by "recognized medical leaders".

Various authors and organizations have defined the quality of health care by explaining it as a concept related to a certain set of dimensions. The most frequently used dimensions according to their frequencies include: (1) Effectiveness, (2) Efficiency, (3) Ease of receiving the service, (4) Security, (5) Fairness, (6) Adequacy, (7) Timeliness of service delivery, (8) Acceptability, (9) Patient focus, (10) Patient satisfaction, (11) Health improvement, (12) Continuity of care.

The dimensions of effectiveness and efficiency are included in most definitions of health care quality. Effectiveness refers to the extent to which the measures taken produce the desired effects (Maxwell 1992). Efficiency, on the other hand, refers to the extent to which objectives are achieved by minimizing the use of resources (WHO, 2000). The ease of receiving the service is

also an important dimension in all definitions of quality of care cited above with the exception of the IOM. This dimension has received different meanings from different authors, where in any case the general concern is to find a way to show in quantitative form how much a service or medical treatment is ready to be given to the person who needs it, at the time properly. Safety refers to the reduction of risk and is an important part of various definitions. According to the IOM (2001), patient safety is "the absence of accidental injuries, due to incorrect medical care, or physician errors," and by physician error we must understand "the failure of a planned action to occur, or the use of a faulty plan to achieve objectives and goals, including practical, procedural problems, products used, etc" (Kohn, Corrigan and Donaldson 2000).

Another set of frequently mentioned dimensions that refer to the extent to which care meets the medical, social needs and aspirations of patients are: Appropriateness, Time of service, Acceptability, Patient focus, Satisfaction, Continuity of care.

Jabnoun and Chaker (2003) used ten dimensions for evaluating service quality of hospitals. These include: "tangibles", "accessibility", "understanding", "courtesy", "reliability", "security", "credibility", "responsiveness", "communication" and "competence".

Smith and Houston (1982) stated that there are two types of service quality; (i) technical quality which includes what the customer actually receives from the service and (ii) functional quality which includes how the service is provided. While according to Lehtinen and Lehtinen (1985), service quality is produced as an interaction between the customer and organizational service elements. They define three dimensions: Physical qualities – Corporate qualities – Interactive qualities.

Hulka et al. (1970) based his evaluations only on three dimensions which he named "personal relationship", "comfort" and "professional competence". Thompson (1983) used seven dimensions such as: "facilities", "communication", "relations between staff and patients", "waiting time", "registration and discharge procedures", "visits" and "religious needs". Baker (1990) focused on "consultation period", "strength of ties" and "professional care". Andaleeb (1998), focused his studies only on five dimensions which were: "cost", "professional skills", "competence", "communication" and "manner". Hasin et al. (2001), identified only five main dimensions such as: "cost", "communication", "cleanliness", "immediate response" and "politeness".

However, one of the most accepted ways of categorizing health care quality indicators is the approach originally conceptualized by Donabedian (1980, 2005) who describes and differentiates indicators into three groups: indicators of structure, process and final products. Zarei, et al. (2012) also stated that technical quality puts the emphasis on skills, the accuracy of practices and procedures and medical examinations, while functional or process quality looks

more at the methods through which the services are delivered to patients. These dimensions have been used by many different authors to measure service quality in many countries (Breyer. et. al. 2018).

SERVQUAL vs. SERPERF IN SERVICE QUALITY ASSESSMENT

Perceived service quality is a concept that measures the discrepancies between patients' expectations and real perceptions of a given service (Parasuraman, 1985). Expectations are reflected in the wishes of consumers who believe in a certain way how a service should be provided. Once the patient's level of expectation is determined, it influences him to make a comparison between what he expected and what was actually offered (Lovelock and Wright, 2004; Zeithaml et al, 1996). On the other hand, perceptions refer to the consumer's evaluation of the service received, seen as a combination between what was provided and how it was provided (Lim and Tang, 2000).

Some researchers believed that service quality should be measured as a one-dimensional variable (Shneider and White, 2004), others believed that it should be evaluated as a two-dimensional construct (Zeinthaml, 2009). The SERVQUAL instrument became the most widely used and accepted method for measuring service quality in most of the literature (Ladhari, 2009). In fact, the way in which consumers evaluate service quality in their minds is assessed by applying the SERVQUAL scale (Parasuraman et al, 1988) as a multifactorial instrument consisting of the above 5 dimensions, characterized by 22 sets of questions (evaluations). This scale measures the gap between expectations and real perceptions, where half of the ratings are processed in such a way as to measure the amount of customer expectations and another 22 ratings designed to measure the actual perceptions of customers on service quality (Babakus and Mongold, 1992). Consequently, the gap will be the difference between the points of real perceptions and expectations, where a positive gap indicates that expectations have been reached or exceeded, while a negative gap indicates failure to achieve expectations.

Although SERVQUAL has been widely disseminated and is considered a valid and reliable instrument to measure service quality, it has been criticized at both conceptual and methodological levels. One of the criticisms is the fact that the five dimensions can be summarized in two dimensions which can be called basic services and additional services (Leveresque, 1996), and can be considered equivalent to the two functional dimensions of Gronroos (1984). Another criticism that attracted the attention of experts was that this instrument could not be universally applied in the service industry, since when it was implemented, researchers had to take into account the type of service provided (Carman 1990).

Also, there was criticism of the scale used to measure expectations as a benchmark (Cronin and Taylor 1992), which neglected the technical aspects of service delivery.

For this reason, Cronin and Taylor (1994) proposed another instrument SERVPERF, which is based on the original SERVQUAL model but believing that its reliability and predictability was more accurate in measuring service quality. These authors were the ones who criticized the SERVQUAL instrument the most, at the time.

They questioned its conceptual basis, thinking that it confused service satisfaction. Their opinion was that the expectation (P) component should be eliminated and only the performance element should be used, creating what is now known as the "SERVPERF" scale. These authors provided empirical data across different industries to prove the superiority of their instrument, which, being a version of SERVQUAL and containing only one element of it, had only 22 ratings, according to which a high level of the perception of performance, meant a high quality of service.

Numerous comparisons have been made by different authors regarding the two assessment instruments of service quality (Cronin and Taylor, 1992; Brady et al. 2001; Hudson et al. 2004; Jain et al. 2004;). Kettinger and Lee (1997), Jain and Gupta (2004), as well as Rasyida (2016) think that SERVPERF is more related to overall service quality than SERVQUAL, while Quester and Romaniuk (1997), Ranjbar (2012) and Kalepu (2014) favor more the use of SERVQUAL.

Both SERVPERF and SERVQUAL are related to the conceptual definition that service quality is an attitude (position) towards the service provided by a company, which emerges as a result of comparing expectations with performance (Parasuraman et al. 1985, 1988; Cronin and Taylor 1992). However, SERVQUAL directly measures both actual perceptions of performance and customer expectations, while SERVPERF only measures actual perceptions of performance, assuming that interviewees provide their answers by automatically comparing performance expectations with actual performance ratings. In this way he implies that measuring performance expectations is unnecessary.

Initially, some researchers argued that SERVPERF is a better measure because it does not depend on unclear customer expectations. Arguments in favor of SERVPERF are based on the notion that perceptions of performance are already the result of comparisons that the consumer himself makes between the expected service and the one received (Babakus & Boller, 1992). Consequently, measuring only performance avoids redundancies.

Some major criticisms of SERVQUAL are related to the measurement scale of gap scores (P-E), the length of the questionnaire, its predictive abilities, the structural validity of its five dimensions, etc. (Babakus and Boller, 1992; Cronin and Taylor, 1992; Dabholkar,

Shepherd, 2000; Teas, 1993). As Teas (1993) would emphasize, since Parasuraman defined expectations as a type of behavior, then customer expectations should be considered as an ideal point, thus the gap model, which emphasizes that superior perceptions of service quality are given when performance exceeds expectations, is theoretically unstable. Parasuraman (1995), defended his instrument by showing that there was virtually no difference in the predictive abilities of the two instruments, emphasizing that the use of only the performance measure (SERVPERF) compared to the expectation/performance difference (SERVQUAL) should be guided by whether the scale is being used for diagnostic purposes, or to build modules with purely theoretical views.

Carrillat et al. (2007) believe that the SERVQUAL scale has greater interest in the field of medicine, as it has higher diagnostic values. By comparing patients' expectations of quality with the actual quality of service received along various dimensions, managers can identify areas where quality has the weakest points and use this information to reallocate resources to improve service quality (Parasuraman et al. 1995).

The importance of the SERVQUAL instrument, proposed by Parasuraman, Zeithaml and Berry (1988), is evident from its widespread application in a large number of empirical studies in different sectors (Brown, 1993; Carman, 1990; Alrubaiee, 201; Kalaja et. al. 2016; Zun et. al. 2018; Umoke, 2020). On the other hand, many other authors like Le and Fitzgerald (2014), Rumintjap et.al. (2017), Akdere et.al (2018) have preferred to use SERVPERF instrument in their studies, to measure service quality in health care sector.

Meanwhile, Buttle (1996) would emphasize that the advantages of SERVQUAL are: (i) it is accepted as a standard instrument for evaluating different quality dimensions, (ii) it is valid for different services, (iii) it is reliable, (iv) is effective, as it has a limited number of statements, making it easy and quick to complete, and (v) has a standard analysis procedure, which facilitates data interpretation. Newman et al. (2001) points out that despite the controversy over the validity and reliability of SERVQUAL, its application in the field of health care is more accepted. Parasuraman's model according to Peprah (2014), is widely used as a conceptual framework for assessing service quality in health care.

The SERVQUAL scale has been widely used in health care studies to assess patients' perceptions of service quality, in a large number of services such as: patient satisfaction (Bowers et al. 1994), hospital care (Carman, 1990), quality of dental service (Mc Alexander et al. 1994), health care in public universities (Anderson, 1995). Despite being criticized, SERVQUAL still remains the most used instrument for quality assessment, as it analyzes the specific characteristics of the service and is suitable for any situation (Ramsaran - Fowdar, 2005).

CONCLUSION

All these studies show that the quality of service in the healthcare is far from being resolved and is still subject to great debate. In order to identify and prioritize performance, as well as to ensure that patient needs and expectations are met, it is necessary to measure both expectations and actual perceptions of service quality (Accounts Commission for Scotland, 1999; Parasuraman, 1985, 1988). It was noticed that different researchers on different times, used different methods and indicators to evaluate the quality of the service in general and in the healthcare service in particular. It was confirmed in the literature that every country, and even every healthcare service organization, should have its own framework for measuring the quality of healthcare services (Endeshaw, 2021). It seems that dimensions like responsiveness, communication, tangibles and safety, were used in almost all reviewed studies. Although SERVQUAL and SERFPERF have been used successfully to assess service quality, both of these instruments have their limitations and restrictions. Therefore, further research is recommended to assess their effectiveness in health care service quality assessment in the future.

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