

## Review

# Quality in Health Services

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### Abstract

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The concept of quality in medicine is quite complex and complicated due to the different factors that affect it. Those defining factors are diverse and are corresponding with the evaluation levels that refer to the structures and procedures that characterize the function of a health unit as well as the results of the given care, the evaluation of which refers to the outcome of the disease, patient satisfaction as well as doctors and health professionals. The concept of patient satisfaction constitutes the most reliable indicator in order for health care given results to be evaluated. The evaluation provides the ability of systemic assessment of the set goals in a given timeframe. The measurement of patient satisfaction targets the programs and health systems evaluation so emerging points can be improved. The benefits-health, social, financial- that come out of the improvement of health services are mainly applicable to patients as well as health professionals, nursing units and the state mechanism. In this paper, through the definitions and the historical recursion of health services, and after studying- understanding the quality and safety factors of patients, based on bibliography, we try to review the securing of the quality of health services, the need for evaluation as well as the effectiveness of quality systems in medicine.

**Keywords:** Defining factors, Evaluation, Need for evaluation, Quality health systems, Quality of healthcare

## INTRODUCTION

In general, these days the search for quality products and services constitutes a criterion and a basic goal of every consumer behavior. The concept of quality is much more complex and complicated in the health sector compared to industry. In the health sector, quality is not equal with the compliance of the product's specifications because patients are diverse and they affect their treatment courses. The quality of the provided health services constitutes a basic expectation on the consumer's part, in order to receive services related to a fundamental social good, such as healthcare (Toundas, 2003)

The concept of quality in healthcare goes hand in hand with the start of medicine. The first criteria of healthcare can historically be found in Egypt, on plates, where ways to treat injuries and surgical procedures are

described, while it's also characteristic that the medical action from the 5<sup>th</sup> century BC is mentioned in "Hippocratic Ethics Codes", codes of good practice of morality and ethics (Kotsagiorgi and Gkeka, 2010; Papakostidis and Tsoukalas, 2012). In modern days, British nurse Florence Nightingale (1820 – 1910) who established modern nursing based on mortality indicators from the injured during the Crimean War, introduced the concept of healthcare quality with the purpose of improving it (Nightingale, 1987). Until late 1970s, the securing of healthcare quality was mostly academic compared to the industrial sector where it was applied from 1930. By the end of 20<sup>th</sup> century, Donabedian, in a review of studies starting in 1954 until 1984, wrote the past attempts and shaped the method of securing quality

with the triptych “sound structures, good processes and suitable outcomes” (Donabedian, 1988; Donabedian, 1992).

The wording of the definition of quality in healthcare is not easy. The multidimensional character of quality in healthcare and the affinity of stakeholders involved in the production, provision and use of healthcare services make it easy to perceive the difficulty that arises in wording one united definition of quality in the provision of healthcare services (Raftopoulos and Oikonomopoulou, 2003). According to the World Health Organization, the quality of health services is the provision of better available healthcare to patients that refers to the total amount of diagnostic and therapeutic acts which when done in the appropriate time, the right way and to the individuals that need them then they can ensure the best possible result utilizing all the tools modern medicine has to offer as well as the utmost patient satisfaction when it comes to procedures, results and human contact. Based on a different definition, healthcare quality refers to procedures and actions taken by an organization which are designed that way so they can respond constantly to patient needs and demands so the best possible result can be achieved immediately and to keep improving continuously (Al – Assaf, 1996; Al – Assaf and Sheikh, 2004).

The demand for continuous progress and management of the quality of different services like industry, education, local government and more, amongst which healthcare is registered, has led to special standards issue. International Organization for Standardization (ISO) is the world federation of national standardization organizations. ISO was founded in 1947 and until today it's estimated that there are more than 19000 international standards. Standard ISO 9001:2008 describes the general frame for the development and appliance of a quality management system, through which the way and the required procedures that look to achieve objectives are defined (Beholz et al, 2003; Braune and Kohnen, 2009; Helbig et al, 2010; Patsios et al, 2014).

In this paper, through the definitions and the historical recursion of health services, and after studying-understanding the quality and safety factors of patients, based on bibliography, we try to review the securing of the quality of health services, the need for evaluation as well as the effectiveness of quality systems in medicine.

### **Factors that define healthcare quality**

In general, the quality of a service is defined based on the ability of providing it directly, on how easy it is to access for its users, its fitness, its reliability as well as the provision of adequate support after its availability. In the health sector the definition of quality, as mentioned before, becomes more complex due to the diverse factors

that affect it. Except for the above criteria based on which the quality of health services is defined, there are other factors that affect the provided services of a hospital (table 1), since the study of quality in healthcare is mostly related to hospitals. Those factors are diverse and are corresponding with the evaluation levels that relate not just to structures (personnel, equipment, facilities, financial resources, organizational structure of a hospital), but also to procedures that define the function of a healthcare unit (actions of care and treatment, bed cover, hospitalization duration), as well as to results of the provided care, patient, doctor and health professional satisfaction (Toundas, 2008; Papageorgiou και et al, 2014; Balaska and Bitsori, 2015).

Specifically, knowledge, experience, skills and professional ethics that must characterize health professional, and especial medical personnel, the behavior of medical and nursing personnel towards patients that must be friendly, kind and defined by total respect for human decency, the arithmetic adequacy of personnel that is directly related to the readiness and speed of effective treatment of incidents and the continuous education of medical, administrative, technical and remaining personnel that is involved in the production of health services, are part of the basic factors that can affect quality in the health sector (Adamantidou, 2004; Balaska and Bitsori, 2015)

Furthermore, in the defining factors of healthcare quality that refer to equipment, facilities and the organizational structure of health units we must include the design of hospital facilities that aim to facilitate the movement of patients and pharmaco-technical resources, the adequate infrastructure, use of new technology, provision of healthcare 24/7, accessibility to health services without bureaucracy as well as the reliability and good function of administrative services (Toundas, 2008; Papakostidis and Tsoukalas, 2012; Balaska and Bitsori, 2015)

Lastly, the speed of solving health problems, right choice of treatment, compliance of health and safety rules, avoidance of hospital infections, securing of healthcare with the lowest possible financial cost all constitute some of the most basic goals of leading executives of every organized health unit the goal of which is to constantly improve the quality of health services with recognition and transmission of its significance across the personnel and apply evaluation procedures securing the quality of the provided health services (Toundas, 2008).

### **Securing quality and health services**

Securing quality refers to the evaluation of the realistic level of quality of the provided services as well as the efforts of modifying the provision of those services where needed. Evaluation provides the ability of systematic

assessment of set goals achievement in a specific period of time. In the health sector and globally there is a kind of preference for the principles of quality assurance, which is quite encouraging, as quality assurance is the preliminary stage towards overall quality. The most important and perhaps the most valid and widely accepted indicator of health service quality assessment is the satisfaction of patients from the provision of health services. Patient satisfaction, as a healthcare user, is an additional criterion for assessing the quality of healthcare provided. It is reasonable for the satisfied patients to cooperate more easily, to be actively involved in their treatment and to continue to trust the medical care services (Johansson et al, 2002).

The concept of patient satisfaction is a reliable indicator in order to evaluate the results of health services. The great difficulty in identifying the concept of satisfaction is well known, as there are disagreements as to its definition and content, and it may have different meaning for each individual, but also for the individual at different times. It is sometimes interpreted as a personal view, sometimes as a posture and sometimes as a subjective perception of the patient. According to Risser, satisfaction for patients is the convergence between their expectation of having the ideal care and their perception of the level of care they enjoy, with the difference in satisfaction and expectations being an important parameter in measuring the quality of health (Risser, 1975). More than twenty years later, Donabedian announced that one of the most important criteria for accrediting the quality of health services is maximizing patient satisfaction. (Donabedian, 1996). Generally, most of the researchers now recognize expectations as a significant factor in shaping patient satisfaction, but there is no agreement between them as to the degree and the way in which unseen expectations affect overall satisfaction.

The degree of patient satisfaction is multifactorial. The level of basic education, intellectual level, understanding ability, cultural values and socioeconomic status (table 1) are factors that have a significant positive or negative impact on patient satisfaction. Also, gender, in the sense that women visit physicians more often and express higher levels of satisfaction than men, and age, in the sense that older people express higher rates of satisfaction than younger people, are two of the key factors considered for investigating patient satisfaction (Irish Society for Quality and Safety in Healthcare, 2003; Pappa and Niakas, 2006; Papanikolaou and Ntani, 2008). In addition, the illness itself, in the sense that severely ill patients have poor psychological mood and appear to be less satisfied with the provision of health services, the experiences of patients from older healthcare services, as well as the good communication between patients and medical and nursing staff are considered to be the key elements for patient satisfaction (Hall et al, 1998; Crow et al., 2003). Also, special features relating to the

organization and operation of hospital settings, such as the way the patient is hospitalized, the good quality of the building facilities, cleanliness and comfortable stay in the wards play a very important role in patient satisfaction and contribute to improve the quality of health services (Scotto et al, 2009).

Improving the quality of health services is a matter of both collective and individual effort in a healthcare organization. Measuring patient satisfaction aims at evaluating health programs and systems, in order to highlight those points that need to be improved. In case the information provided by the patient is evaluated and used in the right and most appropriate way, it can contribute to the quality improvement of the provided health services. Most of the researchers who have been particularly concerned with the issue are currently assessing and expecting in the future that hospital units will include the patient's point of view in the quality assessment system of health services and will take it seriously under consideration regarding each decision-making process for health quality (Sansgiry, 2005).

### **The need for the evaluation of health quality**

At a global level, the increasing cost of health services, the competition and increased patient needs have resulted in an emphasis on measuring the quality of healthcare provided and patient satisfaction with these services, and showing the great need for the recognition of the importance and necessity of patient satisfaction as a valid indicator of quality of care that seems to lead to a continuous improvement of the quality of services (Vuori, 1987; Bond and Thomas, 1992).

The health, social and economic benefits of improving the quality of health services are primarily for patients, but also for health professionals, health care units and the state apparatus (Figure 1). Measuring patient satisfaction has many advantages for the patients themselves, as it can ensure timely diagnosis and choice of the most appropriate treatment, thus avoiding complications, faster recovery and minimizing as much time and cost of hospitalization as possible. Also, good living conditions and minimization of hospital stay mentally help the patients to cope faster and more effectively with the health problem for which they have been hospitalized. Similarly, there are many benefits to the human resources of the hospitals (doctors, nurses, administrative staff), as improving the quality of health services through patient satisfaction leads to increased accountability of health professionals - with the respect and appreciation they receive on the part of patients and their family environment - and broadens the criteria taken into account for the administration of hospitals. (Tselepi, 2000; Papanikolaou and Sigalas, 2007).

Finally, the benefits for nursing health care units, the state and the insurance companies are mainly economic.

**Table 1.** The determinants of the quality of health services

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- Direct provision of health services
  - Health service eligibility
  - Reliability of health services
  - Accessibility to health services
  - Professionalism and staff knowledge
  - Respect for human dignity
  - Numerical staffing
  - Continuous staff training
  - Proper facility design
  - Adequacy of logistics infrastructure
  - Use of new technology
  - Responsiveness of health services
  - Proper choice of treatment
  - Observing hygiene and safety rules
  - Avoiding hospital infections
  - Effectiveness - positive outcome
  - Efficiency (cost-benefit)
- 

The economic benefit of improving health services is related to the reduction of operational costs resulting from rapid intervention in the disease, the saving of significant financial resources and the significant increase in the efficiency and effectiveness of the health system that improve the image of the National Health System and increase citizens' confidence in state healthcare services (Donabedian, 1996).

### **The effectiveness of quality systems**

Standardization, quality control and certification of products and services are not an invention of modern civilization but have been the target of societies since antiquity. In general, implementing a quality system is a prerequisite for effective quality management. The quality system is defined as the organizational structure, processes and resources required to implement quality management. More specifically, the quality system is the organizational framework through which actions directly or indirectly linked to quality management are designed, developed and implemented, so that the quality can be managed in the most effective and efficient way to achieve the objectives (Jackson and Ashton, 1995).

However, in case that the quality system concerns health service organizations, then any implementation efforts become more complex, since a large number of interconnected processes need to be identified and managed, where the outflows and results of a process are often the input for the next one (Crosby, 1988). More specifically, the difficulties in applying quality health approaches are related to the requirement for several hours to prepare, the creation of the necessary bureaucracy, the generation of responses from executives or clubs for the required changes particularly regarding the way they work, the disagreements between

design and implementation teams, and especially to the change of culture which may be the greatest difficulty in a place with established views and interests (Psaropoulos, 2013a).

Quality systems are a new method of management that transforms and modernizes the organization's internal structure and operation, helps to improve communication in the organization, which gradually leads to the creation of a common culture and spirit of cooperation, and emphasizes the continuous training of staff of all ranks. Also, increasing staff sensitivity to quality, achieving a consistent quality that improves the credibility of the organization, and creating the right foundation for certification of a management and quality assurance system are additional benefits from implementing quality approaches to health services (Psaropoulos, 2013b).

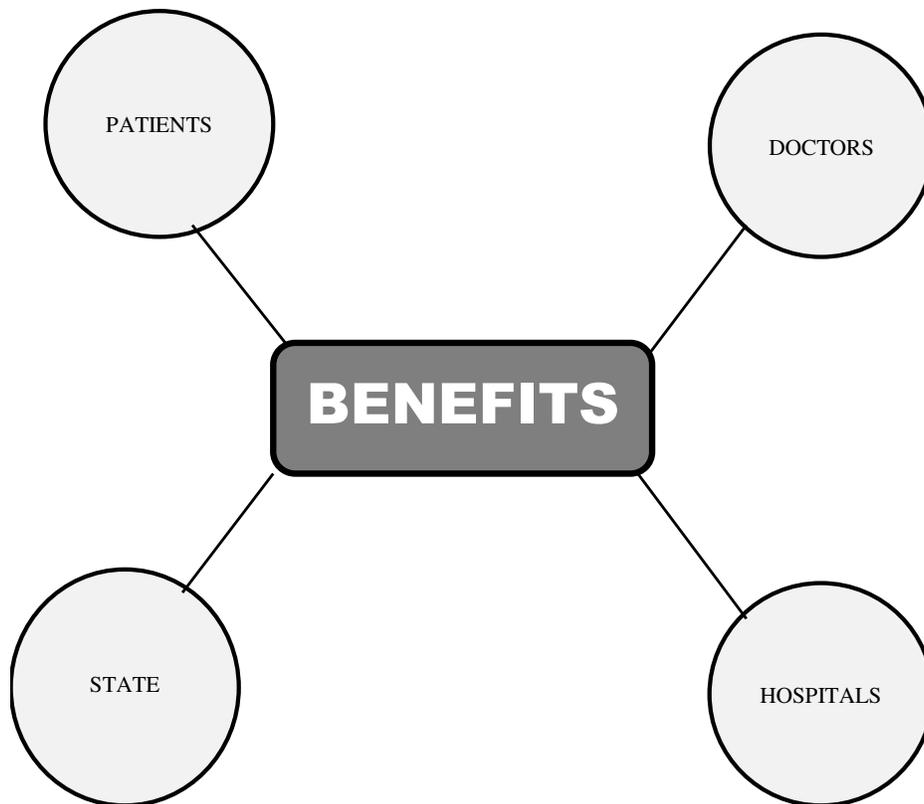
Finally, it is commonly accepted and it must be made clear that organizations that do not conform to the requirements of modern times are unable to follow and respond to the economic and social developments and the changing needs of the recipients of their services. The application of new methods and the abandonment of obsolete practices are able to provide solutions to the ever-increasing demands of the social landscape. It remains to be proved in practice whether and how the state will support the implementation of new methods, such as quality systems, in order to improve and develop the health system.

### **RESULTS**

In general, the concept of quality is very important. Particularly in health services, the abundance of services provided requires coordination and proper organization, as patient-specific requirements are constantly

**Table 2.** Factors that affect patient satisfaction

- 
- Level of basic education
  - Intellectual level
  - Ability to communicate
  - Cultural values
  - Socio-economic status
  - Gender
  - Age
  - Disease
  - Previous experience
  - Good communication between patients and doctors
  - Way of patient hospitalization
  - Good quality of building facilities
  - Cleanliness
  - Comfortable staying
- 



**Figure 1.** Benefits and advantages, as they are distributed by the health quality improvement

increasing. Improving quality in health care is reflected in patient satisfaction. This improvement is achieved through the implementation of processes, assurance and measurement of the quality of health that are part of the quality systems. For the improvement process, it is necessary to evaluate the health services offered to identify the areas that need improvement suggestions.

Especially the health care institutions that play a key role in the healthcare sector need to be improved and

upgraded to meet healthcare challenges and respond to the needs of their service users. It is therefore the responsibility of each healthcare leadership to inspire the vision of the quality of services provided to patients through a continuous improvement process that will allow for the adaptation and reorganization of services to meet patient expectations; which at the same time will not pose a threat to workers but a good opportunity for professional and moral integration.

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