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Ypatia D. Theodorakioglou & George D. Tsiotras
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The need for the introduction of quality management into Greek health care

YPATIA D. THEODORAKIOGLOU & GEORGE D. TSIOTRAS
Department of Business Administration, University of Macedonia, Egnatia 156, 540 06, Thessaloniki, Greece

ABSTRACT This paper describes the results of a research conducted in Greek public hospitals between May and October 1998. According to secondary data, Greek hospitals do not seem to follow the world-wide trend of implementing quality principles and management systems, facing a wide range of problems which serve as an obstacle to their productive and normal function. The research aims to investigate the organized and scientific implementation of quality management systems in Greek public hospitals. Research findings reveal a rare implementation of quality management systems in Greek hospitals and stress the need for the introduction of quality management into Greek health care. Leadership, which plays the more basic role in supporting quality programmes, lacks basic education in quality issues. In most cases, the implementation of quality programmes depends on employees’ initiatives and does not stem from an organized, central plan. Finally, although Greek hospitals have to face many problems, these problems are not exclusively due to the lack of quality programmes.

Introduction

The organized health-care system has been facing some problems, which appear to overtake the historical destination of health, which was the provision of care services to people in need. The overall progress made in medicine and technology, the budget increase and the higher expectations of health consumers, the population senescence and the limited amount of funds that can be disposed for health, have set new dilemmas. The issues above constitute the main concern of Health-care Services Organization Science and they occupy a significant place in health policy.

Undoubtedly, today’s changes in health care demand innovative approaches and timely action more than ever before. With health care more of a community and political affair, management decisions are increasingly more complicated and demanding; and, with health-care costs rising, technology expanding and resources more limited, there is a mounting pressure to optimize the outcome–resource link. The existing conditions require an orientation towards the customer and the patient, an outcome improvement and further information regarding the management of funds (Geoffrey, 1997).

Lately, our attention has been drawn to issues of health-care quality and quality assurance in the field of health organization and policy. Nowadays, more than ever before, hospitals
seem to emphasize quality and its improvement. In the early competitive environment of health-care services, success in providing high-quality services and in building a respectable reputation has become a moral and organizational requirement.

For the past few years, many European countries have established and promoted the existing institutions, procedures and international organizations and services which aim to evaluate and reassure all the factors associated with quality.

In contrast to the significant changes that have been observed regarding quality assurance of health-care services and the implementation of quality programmes in health care in all developed countries, Greece seems to have been left behind.

The purposes of the present study are to investigate the implementation of quality management systems in Greek hospitals and to examine the level of quality of health-care services. The critical factors for adapting quality principles were investigated in Greek public hospital sector by addressing a questionnaire of 95 questions.

**Literature review**

The concept of quality has always given rise to controversies in trying to explain a variety of phenomena. Thus, today, different viewpoints regarding the definition of quality in services exist (Black, 1990; Laffel & Blumenthal, 1989; Ovretveit, 1990). However, the most widely used definition is: “Quality is meeting or exceeding customer expectations” (Evans & Lindsay, 1996). In the field of health, Donabedian defined quality as “the maximization of the patient’s satisfaction considering all profits and losses to be faced in a healthcare procedure” (Donabedian, 1986). Today, although Donabedian’s contribution to the improvement of quality is high, his classical definition tends to be considered static, and as in the industrial field, all efforts are turning towards a continuous improvement of quality.

Among the different quality approaches, a clear preference has been observed, at a universal level, for the adoption of quality assurance principles in the field of health. The term means the assessment of the actual level of quality rendered plus the efforts to modify, when necessary, the provision of those services (Black, 1990). However, total quality management (TQM) has been regarded as the most promising step for health-care quality and productivity improvement. Encouraged by its spectacular results in other industries, the TQM philosophy has been gradually penetrating the field of health. Nevertheless, due to an intense crisis in the field of health, it has been observed that the TQM philosophy has been implemented far too precipitately, especially in the hospital sector, without any previous thought or planning. TQM implementation in the hospital field has been confronting certain grave problems, which should be faced and overcome with due caution and care. The main factors entraining difficulties in TQM implementation in hospitals are: organizational structure, as hospitals traditionally have been organized along a functional-hierarchical structure, contrary to TQM philosophy, which requires a flexible structure with minimum number of levels; organizational culture; leadership style; physician involvement; professional autonomy; the difference between TQM and quality assurance; and union–management relationships (Short & Rahim, 1995).

For the successful implementation of a quality approach that will eventually lead to quality improvement of the provided services, the following factors are necessary: (1) an active, visible support from clinical and managerial leadership for continuous quality improvement; (2) a focus on processes as the objects of improvement; (3) the elimination of unnecessary variation; and (4) revised strategies for personnel management (Laffel & Blumenthal, 1989).

Much research has been carried out aiming to evaluate and eventually improve the hospital health-care quality at a universal level. This research concerns the diagnosis and remedy of causes of problems that may affect the quality level of health-care services. In Greece, similar
research aimed to assess the level of patient satisfaction (Antonopoulou et al., 1991; Papanikolaou & Sigalas, 1994) and examine the quality of medicine distribution network in Greek hospitals (Karayianni, 1994). However, abroad, the research that has been carried out appeared to excel in both number and variety of subjects. Hill and McCrory (1997) attempted to measure service quality at a Belfast maternity hospital. The relationship between financial adversity and the extent and nature of strategic changes in public hospitals in Canada were the objective of the research conducted by Champagne et al. (1997). The research of Bradbury et al. (1998) addressed the question, for cholecystectomy patients, of whether there is an association among manifesting better health outcome results and the quantity of hospital resources consumed when the appropriateness of this surgery is also considered. Tourish and Hargie (1996) explored the importance of high-quality communication between managers and staff for the effective management of change within the National Health Service. Curry et al. (1997) gave a review of a quality initiative which was carried out as a PICKUP Quality Project within the Scottish Health Service in 1989 and 1990. Finally, Lam (1997) presented the Service Quality Measurement Scale (SERVQUAL), a tool for measuring patient opinions of hospital service quality in Hong Kong.

**Health and quality: The Greek reality**

Greek hospitals consume proportionally the biggest part of the total capital absorbed for different health-care activities (Economopoulou, 1991). For this reason, hospitals are the main target of every effort made to upgrade the health system, since their qualitative and quantitative inadequacy reflects the inefficiency of the health-care system.

Nowadays, the numerous problems faced by Greek hospitals result in an inefficient health-care system which needs to be reformed. This reform can be achieved through the implementation of quality management systems. Also, Greece’s participation in the European Community could not leave the field of health unaffected. In the framework of the application of the concept of a ‘United Europe’, one can observe a certain co-operation in the field of medical research and a constant circulation of ideas, which do not allow Greece to remain short-sighted, especially as far as health-care services are concerned.

**Problems faced by Greek hospitals**

Concerning their institutional form, Greek hospitals are, typically, Body Corporates of Public Law. Thus, although they constitute independent, self-administered institutions, incorporated in the state (public sector), the code of civil servants, which defines the human resources management, coupled with the interventions on behalf of the central authorities, tends to be rather intense and frequently controversial, leaving limited margins for good management (Sigalas, 1997).

In most of the cases, the location of Greek hospitals has been selected in a rather casual way. With the exception of a limited number of hospitals, most of them are established in old buildings or in buildings which were constructed for other purposes at first and finally became hospitals. The constant rearrangements that have taken place were not always the appropriate ones, thus affecting the hospital’s operation in a negative way (Kiriakidis, 1992, in Sigalas, 1994; Tavanoti, 1994).

Although for the past 15 years hospital equipment, such as machines, appliances and instruments of high technology, have been updated due to the rapid dissemination of biomedical technology in Greece, they still are considered inadequate (Kiriopoulos, 1993).

The lack of budgetary control, along with the absence of a modern hospital financing
system, does not ensure the appropriate staff motivation, and cost-effectiveness-based procedures cannot be developed. The accounting system is outdated, while only a few hospitals possess information systems (Polysos, 1994). Instead of constituting an integrated financial project, budgeting becomes a simple administrative act. Each new budget is composed on the basis of the previous one, with readjustment for estimates of inflation rates (Polysos, 1994).

Nowadays, the number of employees who work in hospitals is certainly higher compared to the past. However, this number still cannot be considered sufficient to meet the requirements of modern forms of hospitalization and health care.

Internal operation procedures have not yet been established. The usual lack of internal procedures raises different kinds of relationship problems among the members of the staff, numerous communication problems and competence confusion. It is also obvious that there is no way to ensure work quality and productivity due to the lack of inspection (Polysos, 1994).

As far as the role, the competencies and the operation of the eventual Administration and Direction are regarded, confusion seems to be a permanent problem. Also, because hospitals’ structures have been divided into three (medical, hospital and administrative) and recently into four departments, conflicts amongst services exist and problems of coordination arise.

Nowadays, Greek hospitals are also facing huge financial problems; the health sector’s cumulative deficit is estimated to exceed 200 billion drachmas (Sigalas, 1994).

Finally, the lack of qualified employees who could guide and implement a new health policy should not be neglected. In most cases, the different administrations do not encourage a specialized knowledge or experience background in order to meet the requirements of hospital administration (Sigalas, 1997).

Research methodology

At the beginning of the research, we proceeded in the collection of secondary information regarding the hospital sector in Greece and abroad. Based on these data, a structured questionnaire was compiled, consisting of 95 questions which were in accordance with the Malcolm Baldrige National Quality Award and European Quality Award categories. The questionnaire was used to obtain data and information on the understanding of quality, the implementation of quality management systems and to further the investigation of the general quality management status of Greek public hospitals.

The research was conducted in Greek hospitals during a 6-month period from May to October 1998. The analysis of the research findings was conducted according to the European Quality Award. The 95 questions were grouped into the nine categories of the Award. The following elements were examined:

- role of leadership in the implementation of quality management systems;
- sufficiency of resources and use of information systems;
- quality policy and strategy of Greek public hospitals;
- human resources awareness in quality issues and sufficiency of hospital staff;
- status of processes as far as organizational structure, quality mechanisms and procedure accreditation are concerned;
- communication procedures on behalf of hospitals which could lead to customer satisfaction;
- level of people satisfaction.
We should mention here that ‘impact on society’ is not analysed as it derives from the effective and efficient function of hospitals and is a general result of the survey. Also, ‘business results’ are not mentioned due to lack of data about the financial performance of hospitals.

**Research hypothesis**

According to secondary data, Greek hospitals do not seem to follow the world-wide trend of implementing quality principles and management systems. The research hypothesis was based on this assumption and examines the organized and scientific implementation of quality management systems in Greek public hospitals. Certain elements seem to serve as an obstacle to the hospitals’ productive and normal function. These elements are the following:

- general confusion on the meaning of quality;
- absence of written quality policy;
- lack of systematic training on quality;
- financial problems;
- lack of resources;
- absence of a clear health policy at a central level.

**Research results**

The research analysis verified the research hypothesis as it showed that in the vast majority of the institutions under study, the application of quality approaches in Greek hospital healthcare is at an initial stage. The main restraining factor for the adoption of TQM principles is the ignorance of quality issues on behalf of the Institutions’ leadership, since managers do not seem to be ready to implement modern methods of management and are unaware of basic quality terms. Specifically:

- 58.3% of the managers are not ready to apply management theories based on the active influencing of the hospital structure;
- 91.7% of them are unaware of the term ‘internal customer’ and 66.7% of them are unaware of ISO certification;
- only 40% of the leadership regularly reviews key quality indicators to assess organizational performance;
- 33.3% of the leadership is not personally involved at all in quality-related activities such as goal setting or planning;
- 72.7% of the leadership does not apply a specific quality management theory or programme such as quality assurance or TQM.

These results are presented graphically in Fig. 1.

Yet, Greek hospitals appear to face significant problems, which have obstructed their normal operation and have halted every drive to quality improvement. Lack of resources seems to be the main problem. Despite the updating of the past few years, 59.3% of the hospitals lack the high technology instruments to meet fully, by themselves, the requirements for their patients’ diagnoses and therapies. As far as hospital beds are concerned, there is no significant shortage (83.3% of the hospitals stated that the beds suffice), though a better distribution is required.

The use of information systems in Greek hospitals is limited. Only one-third of the responding hospitals use some kind of information system. However, these applied information systems do not cover all the range of hospital operations. Finally, only 8.3% of the
hospitals reported that they keep a formal report on the quality activities. These results are presented graphically in Fig. 2.

As far as strategy and policy are concerned, it should be noted that quality is absent as a target of organizational planning and as a part of mission statement in the vast majority of hospitals. Only a few hospitals have a clear quality policy. Specifically:

- Only 8.3% of the responding hospitals stated that quality is a part of their mission statement;

![Figure 1. Leadership.](image)

![Figure 2. State of resources in Greek hospitals.](image)
in most cases, hospitals’ goals are restricted to the updating of their units or the construction of new units;
• only 8.3% of the hospitals stated that they have established major quality goals;
• only 16.7% of the hospitals reported that they apply quality evaluation and quality improvement methods;
• the scientific implementation of quality theories is rare (83.3% of the responding hospitals do not have a formally adopted quality policy), while their empirical implementation is rather common;
• finally, only 58.3% of the responding hospitals stated that they intend to pursue specific quality policy in the future. This percentage is considered to be low regarding the need for quality improvement of Greek health care.

These results are presented in Fig. 3.

With regard to human resources, the total absence of educational programmes on quality issues is characteristic. Any existing forms of instruction and training concern, in most cases, the professional training of different staff categories. This kind of training is mainly addressed to physicians (100% of the cases) and nurses (81.8%). Managers and technicians are less frequently trained, while other categories of staff are rarely provided with any form of training. Moreover, only 16.67% of the responding hospitals regularly collect and update quality-related information. Therefore, in Greek hospitals employees’ awareness of quality issues is inadequate and disappointing, as presented in Fig. 4.

The use of quality management tools and techniques such as quality circles and suggestion systems is rare, as presented in Fig. 5. In most cases, the implementation of quality programmes depends on employees’ initiatives and does not stem from an organized, central plan or from a formal quality policy.

Individual and group contributions to quality are rewarded only morally as 91.7% of the responding hospitals do not have a special budget for quality projects and programmes and therefore they lack the money for employee reward and recognition.

The research findings indicate that the workforce, though more numerous in comparison to the past, is still insufficient, especially as far as nursing staff is concerned, as presented in Fig. 6.
Figure 4. Hospital employees’ awareness of Quality Issues.

Figure 5. Use of quality tools and techniques by Greek hospitals.

Figure 6. Sufficiency of hospital staff.
The lack of internal operational guidelines constitutes another critical problem. Sixty-six point seven per cent of the responding hospitals stated that they lack written job descriptions. This generates confusion among the members of staff and it is often used as an excuse to avoid work. In many hospitals, the administrative organization appeared to be problematic. At present, the civil servant status quo in public hospitals does not allow the choice of qualified staff in employee reward and in motivational schemes.

The study of processes in Greek hospitals revealed the lack of an organizational structure appropriate for supporting the implementation of constant improvements. Specifically:

- quality managers are notable by their absence;
- ‘quality committees’ are responsible only for inspection tasks, they do not pursue any quality policies and issues;
- the quality measurement of systems, procedures, products and hospital services is moderate, as presented in Fig. 7;
- only 27.3% of the responding hospitals have a specific mechanism to identify significant variations in processes and outputs and a methodology to define and correct root causes.

The preventive maintenance of equipment is mainly conducted by people not employed internally by the hospitals. The lack of specialized technical personnel results in a waste of funds, as hospitals are obliged to seek external help that is, most of the time, expensive.

Procedure accreditation is rare. The background for the implementation of quality programmes is absent in the majority of cases, as is the background for hospital services accreditation. Only 8.3% of the responding hospitals participate in any regional or national external quality assurance programmes such as certification programmes for special aspects of the hospital.

Peer reviews are rare and are restrained within hospitals. Specifically:

- none of the responding hospitals perform or are subjected to external peer review;
- only 54.5% of the hospitals conduct internal peer reviews.

The lack of a creative exchange of ideas and personal viewpoints on crucial matters hampers the development and implementation of quality improvement techniques. As far as suppliers are concerned, Greek hospitals seem to have kept up a traditional way of management. Although 83.3% of the responding hospitals reported that they adopt a specific quality policy
regarding supplier performance, the final choice of suppliers is based only upon the prices offered by the suppliers who meet the basic criteria of quality.

With regard to customer satisfaction, we can observe that, in hospitals, communication with patients and handling of patient complaints is conducted through different services (Communication Office, Committee for the Protection of Patients’ Rights), the institution of which is imposed or established through governmental legislation. Therefore, 91.7% of the hospitals stated that they have a formal procedure for the handling of patient complaints. However, initiatives and further communication procedures, such as patient surveys, are scarce, as presented in Fig. 5. Moreover, only 25% of the hospitals reported that they systematically use the results of patient surveys for quality improvement.

Education and information of patients upon matters of concern to them is unsatisfactory and inadequate. Seventy-five per cent of the hospitals reported that they do not have a specific service for patient education or information where patients can obtain all kinds of information on diseases and treatment possibilities in the hospital.

As far as people satisfaction” is concerned, the majority of Greek hospitals do not survey their employees’ work attitude and perceptions or the level of their demands satisfaction, as presented in Fig. 5.

The main problems hospitals have to face regarding their employees are:

- employees’ absence (75%);
- complaints (41.7%);
- strikes (33.3%).

Therefore, hospital employees seem to be little satisfied. The lack of modern management methods, poor motivation, inappropriate reward methods and limited career opportunities, combined with the frequently bad working environment, are factors which lead to their dissatisfaction.

Finally, besides the lack of resources (human resources, biomedical equipment), Greek hospitals are facing other critical problems. One of them is their location, which in most cases has been selected randomly. Another major problem concerns their installations, which do not meet the operational requirements since they are often very old. These problems obstruct the efficient operation of hospitals and the expansion of their activities.

The financial issues faced by hospitals are also a huge problem. The implementation of closed medical treatment tariffs causes different kinds of problems, as they appear to be less than the average daily cost. This has led to an induced medical request, since patients have to undergo examinations which are not really necessary. Furthermore, the delayed payment of fees on behalf of insurance companies intensifies the financial problems of hospitals.

Conclusions

Research analysis shows that the Greek hospital sector is facing a serious crisis. On one hand, this crisis appears in the sharp rise of service costs, and on the other hand, it appears in the increased public demand for an improved health-care system.

The main conclusions of this research are the following:

- The implementation of quality management systems in Greek public hospitals is rare. In most cases, the successful implementation of quality programmes is excluded, since an active and visible support from managerial leadership does not exist.
- The lack of information systems for data saving and filing obstructs the effective diffusion and use of information. Also, the lack of information systems means that
reductions in operational costs are difficult to achieve and this failure, in turn, hampers the retainment of enhanced hospital productivity.

- The ignorance of essential quality terms by superior managers and physicians is discouraging but also indicative of the lack of information and appropriate education of hospital employees regarding quality issues. The above situation impedes the efficiency and effectiveness of the human resources function.
- Owing to the insufficiency of hospital staff, operational problems are apparent in hospitals.
- Hospitals lack an organizational structure appropriate for supporting the implementation of quality improvements.
- The policy that is followed in the case of suppliers is far behind TQM philosophy, which stresses the importance of an effective co-operation between organizations and their suppliers.
- Hospital management teams are not yet conscious that manpower constitutes their main resource and that every organization should seek the satisfaction of its demands in order to achieve external customers’ satisfaction.
- Hospitals do not pay the necessary attention to the fulfilment of customer satisfaction and little has been done in this direction.
- The problems that Greek public hospitals have to face, such as limited resources and financial problems, hinder their productive and normal operation. However, globally, the limited existence of resources in health organizations has not impeded the formulation and implementation of quality programmes. On the contrary, it has constituted a motivation for strategy changes and quality improvement actions (Champagne et al., 1997). Therefore, the lack of resources in Greek hospitals, whilst hindering their operation, is not totally responsible for the lack of quality programmes.

**Recommendations**

The need for updating and implementing new rational management-administration methods and multi-levelled restructuring of Greek hospitals is now imperative. In order to ensure a successful implementation of the above actions, which are anticipated to lead to efficient and effective health system operation, the following actions are essential:

1. The determination of a clear, detailed and specific health policy at a central level.
2. The change of today’s legal and legislative framework of Greek hospitals, in such way that it will not deprive hospitals of their public character but it will lead to their managerial and administrative flexibility, and efficient management of human resources.
3. The appointment of qualified and competent managers who will successfully contribute to the unitary hospital management.
4. The abolition of closed daily medical tariff as a method of compensating Greek hospitals and the adoption of appropriate financing policies.
5. The implementation of a modern and specialized unitary accounting plan, which will clearly depict the existing financial and economic situation of hospitals.
6. The introduction of modern methods of measurement and evaluation of the real final product, and the allocation of available resources to hospitals, on the basis of their effectiveness, efficiency and the real population needs they aim to cover.
7. The extended use of well-designed information systems.
8. The motivation of employees so that their productivity will be increased and the level of services provided by them will be improved.
The widespread availability of information regarding quality issues of the management team and the rest of the employees.

The promotion of methods and procedures so that the user of health-care services becomes the central point of the different activities of the sanitary policy (Economopoulou, 1991; Kiriopoulos, 1993; Sigalas, 1997).

The essential organizational and administrative restructuring of Greek hospitals constitutes the only way to exit the dead end in which the Greek hospital sector is today. The Greek health-care system requires the implementation of modern administrative methods so that it can operate to high standards. With the same percentage of health expenses, but with a new organizational structure and appropriate managerial and administrative interventions, a top quality health-care system can be offered to every Greek citizen (Soulis, 1994). TQM constitutes a promising approach, which, with the correct use of its principles and its efficient implementation, can heal many of the problems faced by the health-care system.

References


