The impact of the financial crisis and austerity policies on the service quality of public hospitals in Greece

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ARTICLE INFO

ABSTRACT

The influence of the financial crisis on the efficiency of Greek public hospitals has been widely debated. Despite this increasing interest in such research, the question of to what extent the recent reforms in the Greek National health care system were effective in establishing a health care structure and process that provide better results for patients has yet to be fully investigated. As a step in this direction, the paper focuses on patient's experience with public hospital care quality before and during the economic crisis. A questionnaire survey was carried out among 1872 patients discharged from 110 out of the total of 124 Greek public hospitals. Patients' perceptions were analysed using a structural equation modelling approach. The findings reveal that public hospital service quality is at a medium level (66.2 on a scale from 1 to 100) over 2007–2014, presenting a decreasing trend during the recession. Policies to address the crisis may have contributed to a reduction in hospital expenditures, but at the same time patients were increasingly dissatisfied with the technical care. Consequently, there is a need for reforms aimed at the achievement of productivity gains, responsibility, and transparency in the management of productive resources, by enabling health organisations to reduce their costs without a deterioration in the quality of care.

1. Introduction

After eight years of recession, Greece had experienced a loss of about 26 percent of GDP. In this era of economic crisis, Greek governments have applied a reform program in the National Healthcare System (NHS), as an obligatory condition for the rescue loans agreed upon with the European Commission, the European Central Bank and the International Monetary Fund. The most important reform in the NHS carried out between 2010 and the present day involved the merging of the four largest social security institutions that covered salaried employees of the private sector, farmers, the self-employed, and civil servants, under the National Organization for the Provision of Healthcare Services (EOPYY). It was followed by the closing several healthcare units, reductions in the size of the health-care workforce and their salaries, and the limiting of recruitment of health personnel [1]. Other important reforms are the introduction of a new drug-pricing system, the promotion of generics, electronic prescriptions, and administrative control of prescriptions [2], collection on monthly basis of activity and expenditures of hospital data, and implementation of a diagnosis-related group (DRG) payment system.

All of these changes led to a diminution of annual public health expenditures between 2009 and 2014 by 43.0%, and of the contribution of public health expenditure to total health expenditure from 69.5% to 61.6% respectively [3]. While much has been written on the benefits in terms of cost savings arising from these reforms, very few studies have attempted to analyze the changes in health service quality [4,5]. Therefore, there is a need to evaluate to what extent these reforms make resource allocation in health care more efficient and more responsive to consumer preferences while maintaining the quality of care.

In an effort to provide new insights in this area, overall service quality in public hospitals in Greece was measured over the period 2007–2014, using the perceptions of patients with the facilities, the process and the results of hospital care. The primary data required for this study were collected through a nation-wide telephone survey that was carried out among 1872 patients discharged from 110 out the total of 124 Greek public hospitals. Patients' perceptions were analysed by using a partial least squares structural equation modelling approach, which allows a valid estimation of an overall hospital service quality index from the customer's perspective.

A better knowledge of the degree of patients' satisfaction before and during the current financial crisis is valuable for identifying

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the effects of the recent reforms in the NHS undertaken by Greek government officials in recent years on the quality of care, and for evaluating which policies could really contribute to an amelioration of the results in hospital care. The investigation of the experience of Greece which was severely stricken by the debt crisis and the economic recession may be helpful for policy-makers in similar conditions.

2. Conceptual framework

The development of a framework for interpreting individual perceptions of service quality seems to have followed two quite different paths. One approach, which is adopted here, starts from the idea that perceived service quality reflects an evaluation of performance of a service provider [6], and holds that a performance-only model is more appropriate to measure overall hospital service quality (SERVPERF). According to the other approach, namely to SERVQUAL instrument, known as the "American" perspective [7], rating of patient experience with a service is defined as a form of "attitude", which is derived from a comparison of expectations with client's perceptions of a firm's performance. The theoretical grounding of the importance of expectations in client satisfaction has been inspired by various conceptual frameworks developed since 1960′s, such as discrepancy [8], equity [9], fulfilment [10], disconfirmation [11,12], and value – expectancy [13,14] theories.

The most important challenge for research in this field is to generate a valid measurement instrument capable of capturing consumers' insights regarding service quality. Despite the long discussion, there is not yet an agreement on the determinants of perceived service quality. The majority of previous studies employed two perspectives. The first, known as the Nordic school, viewed perceived service quality as a result of an evaluation process in which consumers rate their experience according to certain dimensions of service, such as interpersonal processes, technical service, physical amenities of the facilities, and other dimensions [15,16]. The second perspective, developed by Parasuraman et al. [7], called American school, captures at a higher level of abstraction how consumers judge service quality. It shifted the focus of interest from the main aspects of service to the determination of ten key attributes of quality that are derived from and correspond to these aspects. Attributes of good perceived service quality are not only recognized by Parasuraman et al. [7], but also by Grönroos [16] one of the founders of Nordic school, who, in an effort to identify factors influencing the main dimensions of service quality offered six criteria of good quality, arguing that there is a close relationship between these criteria and the main dimensions of service quality (technical and functional quality, etc). As an indirect reflection of the existence of such a relationship, it becomes clear that the two research paradigms are not mutually exclusive choices, but rather they offer an opportunity to combine seemingly incompatible elements.

To this end, the authors suggest that relating the SERVQUAL criteria of high quality with the main aspects of service quality that are emphasised in Grönroos's conceptualisation may prove a valuable method to bridge these two research paradigms and to better understand how consumers judge service quality. This idea seems to be consistent with the analysis of other researchers [17,18]. With this research purpose, a hierarchical conceptual structure is the most appropriate to quantify patients' perceptions of service quality. A hierarchical structure for scale delivers the advantage to identify and explain separately in a more precise manner, lower order dimensions [19,20]. Using a hierarchical model we can represent criteria of high quality at a higher level of abstraction and relate them to the main dimensions of care at a lower level of
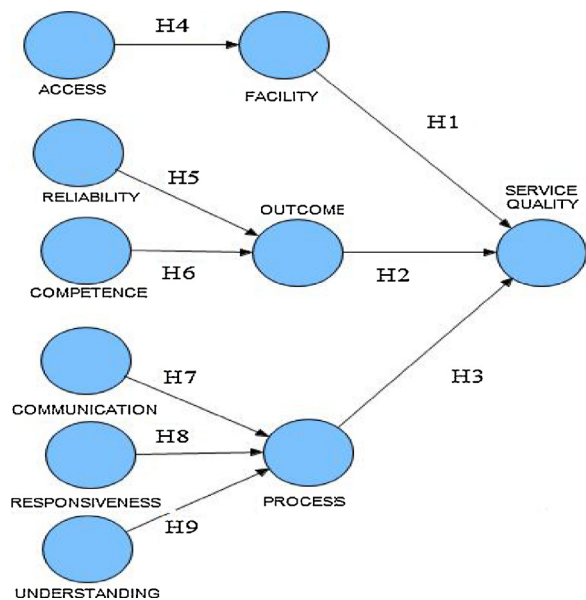

Fig. 1. Conceptual model and hypotheses.

abstraction, thus mediating the influence of good-quality criteria on overall service quality.

Under these influences, our model included three primary dimensions of care, namely: facilities; final outcome of care; and the service delivery process (see Fig. 1, hypotheses H1, H2, H3). Theoretically, the proposed model posits that there is a positive relationship between patients' perceptions of the functional and technical skills of service providers, and facilities aspects, and overall perceived service quality [6,19,20]. Additionally, our conceptualisation incorporated six of the original ten criteria of high service quality proposed by Parasuraman et al. [7], as determinants of process, outcome, and facility quality. The rationale for using only the six dimensions of service quality proposed by Parasuraman et al. [7] is that those variables have the almost same essential meaning with the factors that recognized by Grönroos [16] as contributors to high service quality. Thus, according to our framework, access influences perceptions of facilities quality (Fig. 1, H4 hypothesis). Competency and reliability are major factors that affect perceived outcome (or technical) quality [17,18] (H5 and H6 hypotheses). While understanding, responsiveness, and communication are considered to determine perceptions of process (or functional) quality [17,18] (H7, H8, H9 hypotheses).

3. Material and method

3.1. Data collection and participants

Patients who had stayed two days in a Greek public hospital were targeted to assess perceived hospital care quality one year or more after their discharge from hospital. In order to gather data from individuals with equivalent demographic characteristics, an effort was made to get data representative of geographic regions and specific population groups. With these considerations, the sampling plan involves sample stratification by age, gender and location.

Due to the lack of a sampling frame directly representing all the population units (over two million people), a list-assisted random digit dialing (RDD) telephone survey was carried out by seventy five interviewers between January 2015 and May 2016 to recruit the study participants. An initial RDD frame consisting of all residential exchanges was established, and 2466 area code-prefixes, stratified by county were chosen using systematic sampling with