

Key Performance Indicators (KPIs) for healthcare accreditation system

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Abstract

Purpose – This paper aims to propose valuable performance indicators for evaluation of an accreditation programme, as an effective external assessment scheme in health care.

Design/methodology/approach – The paper is based on an exploratory research which has used semi-structured interviews to collect data from a number of health care accreditation experts. The respondents were selected from different universities and accreditation-associated institutions in developed and developing countries including Iran. They were chosen through “snowball sampling technique”.

Findings – Thematic content analysis of the data provided the following key performance indicators (KPIs) which are hoped to be influential in evaluating the performance of healthcare accreditation programmes. For example; the effect of accreditation in a society, cost of accreditation for all participants (e.g. hospitals, accrediting bodies), tangible improvement in the outcomes of patients care or satisfaction after accreditation, satisfaction of different stakeholders with the accreditation results, and a focus on features and requirements of local health care economy by accreditation programme.

Originality/value – This study is deemed to be unique and novel at ascertaining a number of invaluable dimensions for evaluating the performance of accreditation programmes in public sector, specifically health care. It has sought to contribute to the knowledge in the area of performance measurement and improvement in the public sector.

Keywords Accreditation system, Health care, Performance measurement and improvement

Introduction

Accreditation is argued to be one of the most influential systems for assessing and improving the performance of service delivery processes in health care (Hirose et al., 2003, Nandraj et al., 2001). The term accreditation reflects the origins of systematic assessment of hospitals against explicit standards (WHO, 2003). It has been defined as an external evaluation mechanism which assesses the performance of healthcare organizations (HCOs) through investigating their compliance with a series of pre-established standards aiming at continuous improvement of quality rather than simply maintaining minimal levels of performance (Pomey et al., 2005, Shaw, 2004a). It is *de facto* public recognition emanated from the achievement of accreditation standards by a healthcare organisation, which is demonstrated after an independent external peer assessment of the organisation's performance (Shaw, 2004b).

It has been emphasized that the accreditation owns a number of specific features that make it more preferable for regulators, providers, third parties and customers to rely on than other existing quality measurement and improvement programmes, such as ISO and EFQM, in health care (see for example, Australian Council on Healthcare, 2003, Heaton, 2000, Roa and Rooney, 1999, Shaw, 2000). The main characteristics, as have been mentioned frequently in the literature (e.g. Scrivens, 1997, Donahue and Vanostenberg, 2000, Heaton, 2000, Shaw, 2000), briefly include:

- ◆ Performing a comprehensive assessment of healthcare organizations;
- ◆ Suiting healthcare peculiarities because of originating from this sector;
- ◆ Containing improvement besides mere review aspects; and
- ◆ Assessment by trained and healthcare oriented surveyors

Although the accreditation scheme itself performs an evaluation of HCOs, its performance also needs to be assessed in case it may go beyond its initially determined objectives and does not detect defects and malpractices (Scrivens, 1993, Shaw, 2003). Despite this obtrusive necessity, the argument remains that research into accreditation's performance and effectiveness is still at an embryonic stage (Braithwaite et al., 2006, de Walcque et al., 2008).

According to de Walcque et al. (2008), despite considerable amount of money spent on hospital accreditation programmes, researchers have established a paucity of

evidence upon the effectiveness of this scheme. Therefore, owing to the dearth of studies focused specifically on establishing performance dimensions for an accreditation scheme, this paper attempts to explore a number of key performance indicators (KPIs) for healthcare accreditation programmes. These dimensions are intended to present a generic and practical framework for assessing the performance of these programmes. This paper is structured as follows. The first section reviews the related literature concerning the performance measurement of the healthcare accreditation (e.g. Pongpirul et al., 2006, Greenfield and Braithwaite, 2007). The second section is devoted to describing the research methods employed in this paper. The empirical findings are presented in the next part, followed by discussion and conclusion in the final section.

Background

A variety of studies have called for research into accreditation effectiveness and performance measurement (see for example: Mays, 2004, Øvretveit et al., 2002, Braithwaite et al., 2006, Pomey et al., 2004, Shaw, 2001, Shaw, 2003, Walshe et al., 2001, Øvretveit, 2005). Two distinctive avenues for evaluating accreditation programmes have been mentioned (Scrivens (1997, p.6). The first is the ‘objective indicator’ approach, in which tangible measures of success, mainly in the form of performance indicators, are developed or extracted from reviewed organizations. In the next step, an attempt is made to establish and examine a relationship between the accreditation and those indicators. Within this approach, any change in the quality of services delivered by accredited HCOs is investigated and the positive changes are tried to be attributed to the proper and effective function and performance of the accreditation programme and seen as a confirmatory sign of the accreditation’s impact on the organizations. The second way is called the ‘experience or perception’ approach, in which perceptions of different groups, involved or related to accreditation, are elicited relative to accreditation’s functions or components (Scrivens, 1997, p.6). Both of these approaches have their own strengths and weaknesses. Whilst perception approach is accused of being mostly superficial and judgmental (Scrivens, 1997), criticisms about first approach in the literature are mostly in connection with difficulties of measuring performance in health care (see e.g. Eddy, 1998).

As for existing studies concerning the performance measurement of accreditation schemes, different types of attempts and initiatives have been made in the same line with Scrivens' approaches. Some studies have looked into the relationship between accreditation and clinical indicators (Collopy, 2000, Williams et al., 2005) or patient satisfaction (Heuer, 2004) and providers satisfaction (Al Tehewy et al., 2009). Braithwaite et al. (2006) have investigated the relationship between accreditation status, namely accredited or non-accredited, and clinical performance in a prospective study. By the same token, another category of studies have concentrated on different groups of professionals' perspective upon accreditation performance and effectiveness; for instance, Baker and Dunn (2006) in the education sector and Hurst (1997), Jaafaripooyan (2003) and Pongpirul et al. (2006) in health care. In their studies, Hurst,(1997) Jaafaripooyan and Pongpirul et al. solicited professionals such as hospital staff, accreditation managers, surveyors and clinicians to provide their opinions on performance of their running accreditation programmes in terms of the accreditation standards, surveyors and implementation processes. In a seminal work on the performance of accreditation programmes, International Society for Quality in Health Care (ISQua)^[1] has published a series of standards and principles for external evaluation organizations in health care which can be used by all the organizations for improving and assessing the performance of their programmes (ISQua, 2007b, 2007a). However, because of the importance of accreditation programme in ensuring the quality of health services (Shaw, 2001, Jovanovic, 2005, Dickson and Nicklin, 2008) and in response to increasing and multiple concerns about ensuring quality in health care sector (Ovretveit and Gustafson, 2002), the endeavours for finding a more effective mechanism or innovative way for evaluating accreditation performance has not been thus far stopped. This paper has sought to build up a framework composed of a number of key performance indicators (KPIs) for assessing the performance of healthcare accreditation programmes in order to contribute to the current knowledge in performance measurement and improvement in public sector and specifically health care.

Methodology

This paper is based on an exploratory research approach which has utilised the interview method in order to collect related data. Around 30 experts of healthcare accreditation from several universities (from a number of countries) and accreditation

related institutions, such as Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Australian Council on Healthcare Standards (ACHS) and International Society for Quality (ISQua) in health care were interviewed by email during three months starting from May 2008, of which twenty experts replied. A purposive sample, also known as ‘judgement sample’ and the most common sampling technique (Marshall, 1996, p.523), was selected from the potential participants. This study adopts a rich sample to examine the issue and build further understanding of performance measures in healthcare. Inclusion criteria were developed based on participants’ publications (i.e. mainly books and papers in the accreditation-related referred journals at first stage). Although there was no asserted limitation and mandate for selecting experts from a specific country, experts from those countries which have comparably settled and successful accreditation programme (such as the USA, Canada, Australia, the UK and France, and a couple of interesting developing countries such as Iran. A ‘snowball sampling’ technique was used at later stage in order to select additional experts in a way that, at the end of the interview, the respondents were asked to identify all other accreditation related experts who are able of answering the questionnaire (Marshall, 1996, p. 523).

Since respondents were geographically located in several parts of the world, conducting a conventional interview could be highly expensive and time-consuming, so the ‘email interview’ technique (Foster, 1994) was adopted in this study. The main reasons for selecting this technique specifically were:

- ◆ Potential participants, as mentioned earlier, were spread out in different countries and not limited to a country or an organization.
- ◆ Given their time limitation, this way was convincingly useful because they could respond in their own time and without any pressure, which might impinge on the quality of their responses.
- ◆ They all were supposed to have sufficient access to the internet because of their position and job. This proved to be the case at the later stages of the research, as all respondents replied to the emails.

Potential advantages of this technique, some have been mentioned below (Foster, 1994, p. 93), has made it highly capable for fulfilling the objectives of this study.

- Electronic mail is far less costly than physical mail, telephone or personal interview
- A questionnaire or standard interview schedule can be sent to many recipients at once, irrespective of geographical location or time-zone
- There is no need to make meeting arrangements beforehand
- The questionnaire or schedule remains available to respondents until they are ready to answer
- They can also decide whether to participate or not, and if they contribute, the timing is completely at their discretion
- The responses come back in a form which is fairly polished and readable

The respondents were asked to answer open-ended questions (Silverman, 2005) concerning the main performance dimensions of an accreditation programme and prioritization of the dimensions based on their importance and prominence in evaluating an accreditation programme in health care. The main purpose of the questions was to establish the key factors and indicators for conducting a comprehensive evaluation of a healthcare accreditation programme. The questions were also followed by a statement obtaining respondents' other related comments. Two follow-up emails were sent as reminders to those of respondents who did not respond within the deadline. This raised the response rate remarkably. Further emails were exchanged in order to clarify any ambiguity that emerges during the communications in their responses. Data analysis was conducted using conventional content analysis technique whereby the main categories of themes indicative of accreditation KPIs extracted (Holdford, 2008, Gillham, 2000, Pope and Mays, 2006).

Findings and Discussion

Various themes surfaced after organizing, consolidating and analyzing the data from the questionnaires and the participants' follow-up responses, which formed, in turn, the dimensions (tables 1 to 4). The resultant dimensions are anticipated to give a rather clear picture of the performance and quality of accreditation programmes in health care, from the perspective of experts interviewed in this research.

Accreditation is one of the most known and applicable methods for assessing the performance of healthcare organizations and ensuring the quality and safety of care delivered to patients (Jovanovic, 2005, Sunol et al., 2009). However, performance assessment of this system itself has not been considered as much as its applicability and popularity in health care and only a few studies (e.g. Scrivens, 1993, Braithwaite et al., 2006, Lupton and Doran, 2006, Rooney and Barnes, 2001, Al Tehewy et al., 2009, Greenfield et al., 2009) have embarked on examining the performance of accreditation and various adopted approaches to this evaluation process (Greenfield and Braithwaite, 2009, Sunol et al., 2009). Most of those approaches have relied on the outcomes of accreditation programme in terms of its impact on the hospitals' services, such as Rooney and Barnes (2001), Lupton and Doran (2006) and Al Tehewy et al. (2009). However, assessment of accreditation performance in that way has not been a straightforward and reliable process owing to difficulty in measuring long-lasting, probable and intangible outcomes in health care (Eddy, 1998, Loeb, 2004, de Bruijn, 2002). As such, Ovreveit and Gustafsun (2002) have articulated that it is difficult to prove that the outcomes in health care are due to a specific programme or intervention and not to something else, because of peculiarities of health care. Therefore, because of the complex nature of the sector, there is much more inclination to utilizing perception approaches (Scrivens, 1997, Pongpirul et al., 2006), and to resorting to related and knowledgeable or involved people for identifying pertinent dimensions and assessing the performance of accreditation programmes. The approach of this research, i.e. appealing to experts' perspectives, could provide a generic range of dimensions which are hoped to be useful for evaluating the performance of accreditation programmes in different contexts, specifically health care. The identified dimensions are presented in four tables (1 to 4) on the basis of their relevance to different aspects of accreditation.

Table 1 demonstrates those dimensions reflecting the overall effects of an accreditation programme in a society. For instance, the rate (percentage) of hospitals which meet the requirements (achieve an acceptable level) of an accreditation programme where all hospitals are obliged to participate and apply for accreditation, as in France (Giraud, 2001) and Italy (Shaw, 2006). As such satisfaction and retention rate of hospitals towards a voluntary accreditation programme may also give valuable insights of the effects of accreditation programme. 'Stakeholders satisfaction and reliance' on accreditation results can be an important indicator of accreditation

acceptability in a society, given the fact that in health care due to an information asymmetry between consumers and providers (Montagu, 2003), stakeholders are more amenable to rely on such programme.

Table 1: KPIs concerning the effects of accreditation programmes in a society

- The percentage of hospitals which meet the standards of (mandatory) accreditation
- The percentage of failed hospitals which subsequently are successful by calculations of (mandatory) accreditation
- Demand for (voluntary) accreditation (i.e. uptake of hospitals)
- The level of community awareness of the accreditation programme (a measure of accreditation broad acceptability and credibility)
- Satisfaction and retention rate of hospitals with the (voluntary) accreditation programme
- The degree of stakeholders' reliance on accreditation results in making pertinent policies and decisions
- Satisfaction of different stakeholders with the accreditation results
- Consideration of priorities, features and requirements of local health care economy by accreditation programme

The second groups of KPIs are concerned with the nature of accreditation survey and standards (table 2). As to surveyors, Greenfield et al. (2008) refer to surveyors as a core part of a health care accreditation program to an extent that they take surveyors into account as the eyes, ears and hands of any accrediting organisation, without which the accreditation process is unsustainable. Therefore, the importance of this group as the executable arm of an accreditation programme is overly obvious. According to Greenfield et al. (2009) reliability for an accreditation programme might be achieved through employing a detailed training program with mentoring for new surveyors and defined surveyor selection criteria.

Standards are a main part of accreditation systems, against which HCOs are assessed. The primary objective of these standards is to improve safety, effectiveness, cost and efficiency for the benefit of the whole community (Scrivens, 1995). de Walcque et al. (2008) point out that use of standards is an important way for systematically reviewing a complex system and measuring improvements in the processes of delivering health services. Therefore, it is important that the standards are concomitantly reviewed and keep pace with improvements in care and remain relevant to the service or organization which is being measured. There are various dimensions also should be heeded while evaluating accreditation standards. For instance ‘the rate of clarity and feasibility of standards for healthcare organizations’ implies that standards at first sight should be understandable for those who perform accreditation (i.e. surveyors) and whom are being accredited. As a case in point, Accreditation Canada ^[2] believes in optimal, but achievable (within the current state of the art) and surveyable standards within the confines of resource constraints. Application of a ‘consensual process’ for developing the standards is also another important KPI which is recommended by experts. Incorporation of ‘stakeholders’ voice’ in different stages of accreditation programmes is receiving growing attention among accreditation agencies, see for example O’Connor et al. (2007). ‘Inclusion of clinical indicators in the accreditation standards has increased the clinician involvement in different stages of the accreditation process (Collopy, 2000). The existence of a regular review and update system for whole process of accreditation programmes, specifically the standards, is widely reflected. In JCAHO, standards are reviewed every year for hospitals and every two years for other HCOs and Accreditation Canada reviews its standards every two years. Interview, documentary

analysis and observation are three main methods used for undertaking accreditation and gathering required data concerning HCOs' improvement practices. Accordingly, an emphasis on 'documenting' by HCOs in accreditation standards could be a KPI for evaluating the appropriateness of accreditation standards.

Table 2: KPIs for Accreditation Survey and Standards

- The rate of using trained and health-care oriented surveyors
 - Examination of surveyors' selection and training processes
 - Appraisal of surveyors' performance
 - A sound and reliable scoring system
 - a significant input from all stakeholders (e.g. providers of care, consumers and purchasers, government, insurers and healthcare administrators) into standard development process
 - The existence of a regular review and update system for the standards and the frequency of reviewing and updating process
 - The rate of clarity and feasibility of standards for healthcare organizations
 - The degree of reflection of local/national/international healthcare expectations and criteria in accreditation standards
- Robust accreditation standards which are developed by consensus
- The rate of inclusion of outcome related metrics in accreditation standards
 - The rate of inclusion of clinical indicators in the standards
 - The scope of the standards, i.e. the rate of covering all services and activities in accreditation, e.g. inclusion of both clinical and non-clinical services
 - More attention to structure and process standards, as compared to outcome indicators, for accreditation in developing countries
 - Communication of standards (especially meaning and interpretation) to all participant groups (e.g. organizations to be accredited, surveyors) before accreditation
 - The rate of consideration of documenting requirements in accreditation standards.

The other group of the KPIs relates to the outcomes accreditation programmes are supposed to generate the HCOs indicated in (table 3). There is evidence from the literature indicating a link between accreditation and improved healthcare outcomes. For example, Sunol et al. (2009) quote from those directly involved in the accreditation projects, that accreditation can contribute to improving health care and service quality. Similar claims are made by Chen et al. (2003) and Devers et al. (2004). The latter authors found that a quasi-regulatory organization (e.g., JCAHO) can be a primary driver for hospitals' patient-safety initiatives. However, the existence of such a connection has been also doubted (see for example; Griffith et al., 2002, Beaulieu and Epstein, 2002, Grasso et al., 2005, Snyder and Anderson, 2005).

Table 3: KPIs in relation to the outcomes of an accreditation programme
<ul style="list-style-type: none"> - The number of distinctive actions taken by a hospital following a survey or accreditation decision to meet the requirements. - Tangible measures of improvement in patients' satisfaction and care outcomes after accreditation - The level of HCOs' compliance with accreditation requirements - The rate of achievement of accreditation programme to its pre-determined goals - Improvement in accredited hospitals over time (pre/post accreditation) or in accredited/non-accredited hospitals in terms of following indicators: <ul style="list-style-type: none"> • Improved patient outcomes and patient/family satisfaction • Improved staff satisfaction and lower turnover • Improved financial performance • Improved communication and organizational culture • Increased standardization of processes • Greater safety for patients and staff and fewer adverse events

Table 3 exhibits the dimensions for tracing the impacts of an accreditation programme on HCOs. 'Actions' taken by accredited organizations following evaluation by the

programme may direct towards identifying the real impact of accreditation on HCOs. These dimensions can give a clearer picture for measuring the usefulness of accreditation programmes. Table 4 finally displays valuable indicators intended to judge the overall nature of accreditation programmes. Transparency of all stages of accreditation programme for public and those under assessment and responsiveness of these programmes for their decisions can turn them into an evidence-based programme (Greenfield and Braithwaite, 2009). Flexibility of an accreditation programme to changes in the environment and to the feedback of different stakeholders may maintain its sustainability and relevance.

Table 4: KPIs regarding overall nature of an accreditation programme

- Responsiveness and accountability of an accreditation programme
- Consistency and transparency of accreditation programme
- Comprehensiveness and flexibility of the accreditation programme
- Cost of accreditation for all participants (e.g. hospitals, accrediting bodies)
- The use of a self-evaluation system by the accreditation programme to ensure its continued relevance to current practice

As for the ‘prioritization’ of the performance dimensions (except for very few respondents who considered dimensions such as ‘inclusion of patient safety and outcome indicators in accreditation standards’ much more important in accreditation of hospitals), most of the interviewees were of the opinion that it is difficult to prioritize the performance dimensions. Some stipulated that it is a sort of political decision to prioritise the dimensions based on their importance, because the dimensions may become important given local priorities or policies. For instance, one interviewee mentioned:

“...I am of the view that they [accreditation performance dimensions] cannot be ranked or prioritised; such thinking is contrary to the continuous quality improvement model that informs accreditation

programs. [For example] the cleaning and disinfecting of beds is as important as the sterilising of surgical instruments ...”

Final Considerations

With the paucity of studies working specifically on dimensions concerning accreditation performance, this study has brought together a number of generic and instructive indicators, which might be utilized for assessing performance of an accreditation programme, particularly in health care. However, as mentioned earlier, these performance measures are mostly general pathways and guidelines, which can be sub divided into more specific indicators. Even so, this study can be conceived as unique and novel at ascertaining number of invaluable dimensions for evaluating the performance of an accreditation programme in health care. It has sought to contribute to the knowledge in the area of self evaluation and external performance measurement in public sector. Nonetheless, additional and incessant empirical research is necessary in order to build further understanding of accreditation system and the impact of its application on society.

Notes:

1. ISQua is a non-profit, independent organisation which works to provide services to guide health professionals, providers, researchers, agencies, policy makers and consumers, to achieve excellence in healthcare delivery to all people, and to continuously improve the quality and safety of care (ISQua website).
2. Canadian Council on Health Services Accreditation which is now called Accreditation Canada

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