Health sector accreditation research: a systematic review

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Abstract

Purpose. The purpose of this study was to identify and analyze research into accreditation and accreditation processes.

Data sources. A multi-method, systematic review of the accreditation literature was conducted from March to May 2007. The search identified articles researching accreditation. Discussion or commentary pieces were excluded.

Study selection. From the initial identification of over 3000 abstracts, 66 studies that met the search criteria by empirically examining accreditation were selected.

Data extraction and results of data synthesis. The 66 studies were retrieved and analyzed. The results, examining the impact or effectiveness of accreditation, were classified into 10 categories: professions' attitudes to accreditation, promote change, organizational impact, financial impact, quality measures, program assessment, consumer views or patient satisfaction, public disclosure, professional development and surveyor issues.

Results. The analysis reveals a complex picture. In two categories consistent findings were recorded: promote change and professional development. Inconsistent findings were identified in five categories: professions' attitudes to accreditation, organizational impact, financial impact, quality measures and program assessment. The remaining three categories—consumer views or patient satisfaction, public disclosure and surveyor issues—did not have sufficient studies to draw any conclusion. The search identified a number of national health care accreditation organizations engaged in research activities.

Conclusion. The health care accreditation industry appears to be purposefully moving towards constructing the evidence to ground our understanding of accreditation.

Keywords: accreditation, health care, systematic literature review, quality and safety

Introduction

Accreditation, quality and continuous improvement have become an intrinsic part of the discourse and activities of health services. Internationally, dating from 1970s, health care accreditation programs and accrediting organizations emerged and developed. There are now many national accreditation organizations and an international body, the International Society for Quality in Health Care (ISQua), which has enrolled to date members in over 70 countries. While it is fair to say that involvement in accreditation is variable, in many parts of the world it now is an accepted and important element in quality improvement activities. Nevertheless, the evidence base for accreditation is thought to be incomplete. In the accreditation literature, there have been many calls for research into accreditation [1–8]. Commentators make the case that the evidence to support the claims of accreditation programs is lacking. These comments are representative of the concerns expressed:

Many countries are embarking on accreditation programs without any evidence that they are the best use of resources for improving quality and no evidence about the effectiveness of different systems and ways to implement them. [5]

One response to the call for an empirically grounded base is a large-scale study currently in progress examining the relationships between accreditation and organizational and clinical performance [9]. While the anecdotal literature contains argument about the value and merits of accreditation, the evidence has not been assembled and reviewed. The purpose of this study was to identify and analyze the research literature on accreditation.

Methods

Search strategy

The search, using a multi-method strategy, was conducted between March and May 2007. A similar search strategy has

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been used in other pertinent reviews [10–12]. In conducting the search, where available, citations, abstracts and complete references were downloaded into Endnote X.0.2, a database referencing program, for subsequent assessment.

Selection criteria

We included empirical work that systematically examined accreditation or the accreditation process. The studies selected centered on how accreditation works, what it does, the results achieved and accreditation surveyors and their processes. The selection was limited to contributions in English.

Electronic database search

The first search strategy was a comprehensive interrogation of three electronic bibliographic databases. The literature was examined from the Medline database from 1950, EMBASE from 1980 and nursing and allied health literature from CINAHL from 1982.

The initial search utilized the broad keywords 'quality', 'quality assurance', 'quality indicators' and 'quality of health care'. These keywords produced a large number and wide range of references; the majority of which were not relevant to the task. For example, a search in Medline with these terms returned a result of over 2 900 000 items. After exploration and testing two key search terms—'accreditation' and the 'Joint Commission on Accreditation of Healthcare Organizations' or 'JCAHO'—were identified as relevant. Within each of the databases the search terms were searched separately. When combined the search identified 33 935 references.

Within the results obtained, a further narrowing was undertaken by searching for those references associated with 'research', i.e. 'accreditation and research' and 'JCAHO and research'. This identified 3921 references, which, with the removal of duplicates, left a total of 3029 references.

An analysis of abstracts of these references was conducted. This analysis identified 58 substantial studies that involved examining accreditation via one or more research methods. The remainder were largely discussion or commentary pieces about accreditation or clinical research.

Identification of additional materials from accreditation agencies

The second search strategy comprised consultation with health sector accreditation agencies to identify additional materials. The strategy involved searching their websites and, where possible, through discussion with key agency personnel. The search included 22 national agencies and ISQua. A number of the agencies' websites were in their native language and were either relatively inaccessible or contained no articles which met the search criteria. While only one published document was retrieved from this search, it identified where research into accreditation is underway. The 'Research Working Group' (RWG) of ISQua was first convened in October 2005 to collate information from member agencies about accreditation research. The RWG-reported research having been completed, in progress or being planned by their member agencies. The following agencies are currently conducting one of more studies, but have yet to report publicly about their research: Irish Health Services Accreditation Board (IHSAB), the United Kingdom CHKS, Australian Council on Healthcare Standards (ACHS), Australian General Practice Accreditation Limited (AGPAL), Haute Autorité de santé (HAS), Italian Society for Quality of Health Care, JCAHO, Canadian Council on Health Services Accreditation (CCHSA) and the Spanish accreditation organization Fundación Avedis Donabedian (FAD).

Snowballing via other databases

The third search strategy involved a 'snowballing' technique of following up key materials (discussion papers, articles or reports) via the internet and search engines. The Web-of-science, Google Scholar and Scirus internet search engines were employed to locate documents. Literature from 1966 or since the internet's inception was searched. The snowballing technique identified an additional seven documents. These included organizational reports and documents, and peer reviewed articles.

Final result of the systematic search

To summarize, the systematic search utilized three strategies—a search of the major health bibliographic databases, consultation with accreditation agencies and the snowballing technique. This resulted in 66 documents meeting the search criteria.

Findings

The impact or effectiveness of accreditation programs has been researched with a variety of foci and to differing degrees. The 66 documents were categorized under 10 topics: professions' attitudes to accreditation, promote change, organizational impact, financial impact, quality measures, program assessment, consumer views or patient satisfaction, public disclosure, professional development and surveyor issues. These topics are summarized below.

Professions' attitudes to accreditation

Some studies have examined the health professions' attitudes towards and beliefs about accreditation; key results are presented in Table 1. These present contrasting views of professional attitudes, with both support for and criticism about accreditation programs expressed.

In an assortment of studies, health professionals supported accreditation programs [13–18] or were in agreement about their respective accreditation standards [19–24]. In one study, there was a high level of support for a proposed accreditation program [15]. Accreditation programs were supported for the following reasons: an accreditation program is an effective strategy for assuring quality [14–16, 19],

Table 1 Key results of professions' attitudes to accreditation

Relevant studies (listed by reference number)	Key findings
[13]	A small majority of participants (medical technologists) preferred working in an accredited laboratory. They experienced that accreditation improved the traceability of work and improved the procedures. A large majority of participants considered that accreditation increased their workload. Two laboratories did not think accreditation improved the quality of results. Concerns were accreditation increased paperwork, decreased adaptability and perception that attention directed to processes rather than quality.
[14]	Health professionals (incorporating nurse managers, nurses, carers and quality coordinators/managers) generally supported the accreditation program for aged care facilities. However, health professionals also expressed concern about a lack of consistency among assessors and the cost of the accreditation program for aged care facilities.
[15]	Stakeholders (incorporating doctors, hospital administrators, governmental officials and insurance representatives) expressed a high level of support for an accreditation program (voluntary, standards based approach, periodic external assessment and quality assurance measures). Concern was expressed that the biggest obstacle was how to finance the accreditation program.
[16]	Accredited organizations cited positive benefits of the accreditation process. Most indicated that they would reapply for accreditation. Accredited organizations discussed challenges complying with standards and meeting the information requirements.
[17]	A large majority of respondents agreed that the accreditation program had been of significant benefit to their organization. The benefits included improving communication, commitment to best practice, information available for evaluation activities and quality care activities, improved structure for quality, greater focus on consumers, supporting planned change and staff management and development. Conversely, a number of respondents stated that the accreditation program was bureaucratic, created increased workloads and stress for staff (particularly middle managers), consumed considerable resources and they questioned the benefit to their organization.
[18]	Preparations for accreditation provided hospital staff with an opportunity to reflect on the operation of the organization. At the same time, staff experienced the accreditation process as bureaucratic.
[19]	Participants (allied health deans) affirmed the role of accreditation as an effective system for measuring quality in higher education.
[20]	Dentistry practitioners and program directors agreed on the importance of most experiences and activities required by current accreditation standards.
[21]	Most laboratories thought accreditation had resulted in better laboratory performance with more documentation and better health and safety training procedures. A significant proportion of participants (managers/clinicians) considered accreditation to be overly bureaucratic, inefficient and expensive. A concern that accreditation covered the domains of other regulatory bodies was also expressed.
[22]	Study demonstrated that general practitioners are extremely supportive of the preparation program for accreditation, valuing the flexible, learner-centered style of the teaching and learning.
[23]	Medical fellowship faculty believed that the requirements and criteria were valid for determining quality of faculty development fellowship programs. The accreditation process was also considered by faculty staff to be time-consuming and they thought that it could be shortened.
[24]	Purchasers had a keen interest in health plan accreditation and relied heavily on accreditation decisions when choosing which plans to offer their beneficiaries. Purchasers also wanted to understand the strengths and weaknesses of the accreditation process for their own contracting purposes.
[25]	Doctors were unaware or sceptical of accreditation. They held concerns about how safety and quality of care should be measured. Doctors perceived themselves to be accountable within a professional framework (self/patient/colleagues) not to the organizations in which they worked.
[26]	Senior staff's principal concerns of an accreditation program were related to perceptions that the process is unwieldy and it offers little value for patient care delivery for the resources required. Significant levels of negative feedback were received.
[27]	The study examined the small hospital accreditation scheme in the United Kingdom. The program (including visits by independent surveyors) was valued by respondents who were also keen to see it continue to evolve.

(continued)

Table 1 Continued

Relevant studies (listed by reference number)	Key findings
[28]	Respondents (hospital administrators) explained that the largest factor contributing to rural hospital deterrence to seeking accreditation was cost.
[29]	Healthcare professionals (physicians, dentists, pharmacists, and nurses) had been facing many problems with multidisciplinary process-related issues of an accreditation standard. Surveyors experienced difficulties in conveying the core quality improvement concepts to the professionals.

accreditation results in better organizational performance [13, 14, 17, 21] and enables collegial decision-making [17, 18] and accreditation provides a guide to external stakeholders to how quality and safety is managed within an organization [16, 18, 24]. However, all studies with one exception, which recorded improvements due to accreditation [21], did not attempt to examine the impact of the programs.

Other researches report health professionals' critical perspectives on accreditation. These studies suggest that health professionals hold concerns about their respective accreditation programs, including the program is bureaucratic and time consuming for the organization to use [13, 14, 16–18, 21, 23, 25, 26], the program is perceived to add little value to patient care [25, 26], there are high (direct and indirect) costs of the program [21, 26–28], there is a perceived lack of consistency among assessors [14, 17] and there are problems with accreditation standards [29]. One further study, an Indian study examining stakeholder views about the proposed introduction of an accreditation program, identified caution about the proposed program [15].

The research into the views of health professionals about accreditation is patchy, with some professions' or groups' opinions examined and others unexplored. Two studies assessed the views of doctors about hospital accreditation programs. Doctors considered such programs were not relevant to them. Instead, they viewed their professional forums as more appropriate in addressing issues of practice standards and quality [18, 23, 25]. Nurse managers were most positive about and motivated to participate in an accreditation process due to their organizational responsibilities [14, 18]. Health managers were reported to be positive about accreditation, identifying it as a strategic issue by which to influence care processes [16, 18]. Allied health deans also perceived accreditation favorably [19], as did laboratory managers and medical technologists [13, 21], aged care service providers (incorporating nurse managers, nurses, carers and quality coordinators/managers) [14], dentistry practitioners and program directors [20] and stakeholders (including doctors, hospital administrators, governmental officials and insurance representatives) in a country where the introduction of a program was being considered [15]. Similarly, purchasers of health services regarded accreditation positively as it provided them with a guide to the quality of the services they were examining

[24, 27, 30]. Professionals from rural health services have been asked their reasons for failing to participate in an accreditation program [16, 28]. The most significant barriers identified were cost [28], difficulty in meeting standards and collecting data [16].

Promote change

The activity of preparing and undergoing accreditation has been shown to promote change in health organizations [18, 31–33]; key results are presented in Table 2. A study in Australia monitored for 2 years a group of 23 hospitals which applied for accreditation and then compared them with those which had not. The accredited hospitals showed significant change in six areas, most notably in nursing organization and safety [31]. Research in one organization revealed changes instigated by accreditation as it provided an opportunity for health professionals to reflect on organizational practices. The organization then reportedly changed policy, decision-making behaviors and introduced a continuous quality program [18]. Similarly, participating in an accreditation program and a randomized clinical trial led to significant improvements in both the dissemination and the quality of clinical guidelines [33]. A review of the development of several accreditation programs noted their convergence and widespread impact on both individual organizations and at a system level [32].

Organizational impact

The organizational impact of accreditation programs remains unclear; key results are presented in Table 2. One study failed to identify any differences between accredited and non-accredited (rehabilitation) programs [34]. Another study found improved outcomes when a (trauma) health service was accredited [35]. A review of accredited hospitals in France showed no significant differences in accreditation decisions according to their status and size [36]. However, a trend was identified that larger hospitals received more numerous and serious recommendations.

A study reported enhancements to patient care through three organizational strategies introduced as a result of participating in an accreditation program [37]. The strategies were a patient communication strategy, an evaluation strategy and a quality improvement strategy. A participative management

Table 2 Key results of promote change and organizational impact

Relevant studies (listed by reference number)	Key findings
[18]	Preparations for accreditation provided hospital staff with an opportunity to reflect on the operation of the organization. It enabled the introduction of a continuous quality program, greater consideration of exit surveys and improved procedure documentation.
[31]	Accredited hospitals could be differentiated by significant changes in six areas: administration and management, medical staff organization, review systems, organization of nursing services, physical facility and safety, hospital role definition and planning. Most affected were nursing organization and physical facilities and safety; least change was found in areas most directly associated with medical staff.
[32]	Different countries have adopted similar accreditation programs. However, they were implementing and adapting their accreditation programs to meet their specific policy needs.
[33]	Hospital combining both a clinical trial and participation in an international accreditation program led to a significant improvement of both dissemination and quality of guidelines on perioperative diabetic care.
[34]	Survey of accredited and non-accredited (rehabilitation) programs suggested no significant differences in the organization and delivery of cognitive rehabilitation therapy.
[35]	Development of a trauma program and commitment to meeting national guidelines through the accreditation process appeared to be associated with improved outcome after injury.
[36]	The study showed wide heterogeneity in the summaries on accreditation and in accreditation agency decision-making for different size and status hospitals. Also provided initial insight into common quality defects and priorities for hospitals.
[37]	Described a program, developed to meet an accreditation standard, that helped focus a large acute private hospital on patients.
[38]	The manager was the most important entity in achieving a successful accreditation outcome. Managers, who were perceived as participative, have more years of experience, had written more self-studies, and whose faculty support the accreditation process, were likely to have more positive accreditation outcomes.

style and an organizational support for the accreditation process have been shown to affect the outcome positively [38].

Financial impact

The financial costs of accreditation for organizations are an under-researched area. There are contrasting assessments made in the few studies that have been conducted; key results are presented in Table 3. Three studies judged the costs to be high for individual organizations and questioned whether accreditation was an appropriate use of resources [14, 26, 39]. In examining an accreditation program in a developing country, one study found that the overall financial viability of the program and costs for individual organizations was unsustainable [40]. Another study noted the costs incurred in participating in accreditation, and argued that these should be viewed as an essential investment [30].

A recent work examined the costs for a specific health service (methadone treatment sites). It concluded that there were no significant financial differences for organizations of different size and location [41]. However, the study also reported that per-patient accreditation costs were substantially larger for small and rural organizations compared with medium to large and urban locations.

Quality measures

Quality measures incorporate items defined as clinical indicators, quality indicators or clinical performance measures. The relationship between quality measures and accreditation is complex; key results are presented in Table 4. In some work, there does not appear to be a direct relationship between the two. No relationship is generally found between a specified quality measure and an accreditation outcome [42–45]. One study showed that improved compliance with accreditation standards had little or no effect on clinical indicator performance [46]. A weak relationship between accreditation and quality measures was identified in one instance [47]. In a similar vein, a relationship did hold for health plan scores when compared with accreditation [42]. However, in the same study, accreditation and patient-reported measures of quality and satisfaction were found to be unrelated.

For some time, accreditation agencies have been developing, implementing and monitoring quality measures in health care organizations. While not always an essential part of their respective accreditation programs, some quality measures

Table 3 Key results of financial impact

Relevant studies (listed by reference number)	Key findings
[14]	Health professionals expressed concern about the cost of the accreditation program for aged care facilities.
[26]	Senior staff's principal concerns of an accreditation program were related to perceptions that the process was unwieldy and it offered little value for patient care delivery for the resources required.
[30]	A study of expenditures in accreditation argued that the costs should be seen as an essential investment and demonstration of commitment to quality.
[39]	Case study of a neuropsychiatric hospital which questioned whether the quality of care was improved by the accreditation process and the costs constitute an appropriate use of resources.
[40]	Serious resource constraints, both financial and expertise, had undermined the ongoing viability of the Zambian hospital accreditation program.
[41]	Methadone treatment sites faced similar accreditation costs regardless of characteristics such as size and location. Rural and smaller sites incurred a greater burden from accreditation. There was no significance difference in cost for a site regardless of accreditation outcome; nor did previous accreditation affect the cost.
	Accreditation preparation costs were the majority of the total expenditure, with the majority of preparation in the final months prior to survey. Preparation for accreditation was seen as labor intensive.

Table 4 Key results of quality measures

Relevant studies (listed by reference number)	Key findings
[42]	A study to determine the characteristics of accredited plans, their performance on quality indicators and the impact on enrolment. The results showed accreditation did not ensure high-quality care. It is positively associated with some measures of quality, but it did not ensure a minimal level of performance.
[43]	During an accreditation survey, experienced surveyors failed to detect an error-prone medication usage system (shown by an independent audit). This raised questions about the validity of survey scores as a measure of safety.
[44]	There was a potentially serious disjuncture between outcome measures and accreditation evaluations. Data showed no relationship of substance, and a confusing pattern of minor and sometimes conflicting associations.
[45]	No significant relationships existed between categorical accreditation decisions (JCAHO) and quality indicators.
[46]	Those hospitals participating in an accreditation program improved their compliance with accreditation standards; non-participating hospitals did not. However, there was no observed improvement on the quality indicators.
[47]	Analysis revealed a weak relationship between accreditation or certification status and the indicators of quality of care (the characteristics examined were average cost per patient, per diem bed cost, total staff hours per patient, clinical staff hours per patient, percent of staff hours provided by medical staff bed turnover, and percent of beds occupied). Accredited or certified hospitals were more likely to have higher values on specific indicators than hospitals without accreditation.
[48]	Clinical indicators were reported to have become an accepted part of hospital quality improvement activities. The inclusion of clinicians in indicator development, along with regular feedback had resulted in their extensive use, and many actions to improve patient care.
[49]	An accrediting agency provided feedback to organizations on their quality indicator data. A significant majority of organizations responded to this feedback to improve both the processes and outcomes of patient care.

Table 4 Continued

Relevant studies (listed by reference number)	Key findings
[50]	A self-evaluation project allowed health services to monitor their own activities in order to asses critical factors related to patient care. The project had the potential to be the starting point to improve the quality of services and to compare national and international quality assurance results.
[51]	Quality indicator performance measures encouraged organizations to seek improvements in patient care (data showed improvement in 15 of 16 inpatient measures).
[52]	Including discharge instructions among other evidence-based heart failure core measures appeared to reduce re-admission or mortality.
[53]	Feedback to hospitals on their clinical indicator performance produced consistent improvement over the study period. Hospitals initially with low levels of performance had greater improvements than those with higher performance.
[54]	A study examining the value of self-reporting standardized performance indicators for hospitals. Symmetry of disagreement among original abstractors and re-abstractors identified eight indicators whose differences in calculated rates were statistically significant.
[55]	A study comparing organizations with and without quality improvement activities: the effects of self-reported quality improvement activities were often small and inconsistent, and in some instances contrary to expectations.
[56]	It was faulty to assume that clinical indicators derived from different measurement systems will give the same rank order.
[57]	Hospitals that participate in a quality improvement program were no more likely to show improvement on quality indicators than were hospitals that did not participate.
[58]	Medication errors were found to be common in a stratified random sample of organizations. A significant number (7%) of potentially harmful errors were identified. Accreditation of a facility was not associated with a lower error rate.
[59]	The association between quality of care and survival for acute myocardial infarction was examined for accredited and non-accredited hospitals. Non-accredited hospitals displayed lower quality than accredited hospitals. However, there was considerable variation in performance among accredited hospitals.

have been shown to improve care outcomes in health organizations [48–54]. Similarly, participation in an accreditation program and a randomized clinical trial promoted improvement in a quality measure, in this instance a clinical guideline [33]. However, another study found that the effects of quality improvement activities were often small and inconsistent [55]. An important argument has been made that different quality measures, developed and implemented in different ways, should not be expected to promote similar outcomes [56].

Conflicting findings hold in comparing accredited and non-accredited hospital quality indicator performance. Quality indicator results from hospitals that voluntarily participate with quality improvement organizations could not be differentiated from those hospitals that do not participate [57]. Similarly, no difference could be found between accredited hospitals, non-accredited hospitals and nursing homes for medication errors [58]. However, another study revealed that accredited hospitals performed better on a range of quality indicators than did non-accredited hospitals, albeit there was considerable variation of performance within the accredited hospitals [59].

Program assessment

Accreditation programs have been assessed and researched for their validity [17, 21, 23, 27, 43, 60–64]; key results are presented in Table 5. The findings from this research are inconsistent. Accreditation programs in six studies were deemed to be credible [17, 21, 23, 27, 61, 62]. The validity of accreditation programs was questioned in other cases and authors have argued for the need for improvements in or clarification of standards [21, 60, 63, 64]. In one instance, the validity of an accreditation program as a measure of patient safety was questioned, based on its failure to identify an error-prone medication usage system [43].

Two descriptive studies examined the development or implementation of accreditation programs in developing countries [40, 65]. In one, the milestones achieved and challenges facing the program were detailed [40]. In the other, an overview of the program and its development was presented [65].

An argument has been made in favor of specialized organizations that perform accreditation and establish standards for healthcare delivery, at least in the United States [66].

Table 5 Key results of program assessment

Relevant studies (listed by reference number)	Key findings
[17]	A large majority of respondents agreed that the accreditation program had been of significant benefit to their organization. The benefits included improving communication, commitment to best practice, information available for evaluation activities and quality care activities, improved structure for quality, greater focus on consumers, supporting planned change and staff management and development.
[21]	Most laboratories thought accreditation had resulted in better laboratory performance with more documentation and better health and safety training procedures. However, a significant proportion of laboratories considered accreditation to be overly bureaucratic, inefficient and expensive. A concern that accreditation covered the domains of other regulatory bodies was also expressed.
[23]	Medical fellowship faculty believed that the requirements and criteria were valid for determining quality of faculty development fellowship programs. However, the accreditation process was considered by faculty staff to be time-consuming and they thought that it could be shortened.
[27]	The study examined the small hospital accreditation scheme in the United Kingdom. The program (including visits by independent surveyors) was valued by respondents who were also keen to see it continue to evolve.
[40]	Serious resource constraints, both financial and expertise, had undermined the ongoing viability of the Zambian hospital accreditation program.
[43]	During an accreditation survey experienced surveyors failed to detect an error-prone medication usage system (shown by an independent audit). This raised questions about the validity of survey scores as a measure of safety.
[60]	The study developed eight models by which to classify the process of evaluation criteria applied to the nursing services adopted by accreditation programs.
[61]	The study developed a framework and assessment tool which offers patients and other stakeholders a credible measure of quality and safety at the practice level. The tool was developed through a process bridging quality control and quality improvement.
[62]	A protocol to evaluate the capacity of special care units to provide quality care was evaluated. The standards used, their intent and the survey process, were considered sound by those who tested the protocol and by those who were evaluated by it.
[63]	The current design of a radiology accreditation phantom program was unsatisfactory for assessing image quality in digital mammography.
[64]	In examining the efficacy of accreditation standards applied to medical specialists the study concluded that there is an imbalance between the setting of standards and their implementation.
[65]	The accreditation program for hospitals in South Africa is deemed to be beneficial.
[66]	The uniqueness of each accrediting organization and their program and standards was noted. Different organizations were better suited to accredit specific areas of health.

While leaving open the question as to whether such accrediting organizations are ensuring high-quality healthcare, the authors express support for the range of specialized accrediting organizations and programs. The difficulties experienced by an accrediting organization in the United Kingdom have also been examined. The study suggested that there was an imbalance between setting and implementing the standards of the accreditation program [64].

Consumer views or patient satisfaction

Although the relationships between consumer views or patient satisfaction and accreditation remain largely unexplored, the limited work that has taken place found no relationships [42, 67, 68]; key results are presented in Table 6. An examination of the relationship between not-for-profit hospital accreditation scores and patient satisfaction ratings found no association, either summatively or formatively [67]. Similarly, patient-reported measures of quality and satisfaction between accredited and non-accredited health plans could not be differentiated [42].

Patients' and health professionals' views about compliance with accreditation standards have been compared. While differing in specific details, the satisfaction rank-order correlations for the two groups were similar [69]. A survey of patients during the accreditation of general practices showed patients' scored practice issues (access, availability and information availability) lower than doctors' interpersonal skills [68].

Table 6 Key results of consumer views or patient satisfaction, public disclosure, professional development and surveyor issues

Relevant studies (listed by reference number)	Key findings
[42]	A study to determine the characteristics of accredited plans, their performance on quality indicators and the impact on enrolment. The results showed accreditation did not ensure high quality care. It is positively associated with some measures of quality, but it did not ensure a minimal level of performance.
[67]	No relationships were identified between hospital accreditation scores and patient-satisfaction ratings, suggesting a dissociation between them.
[68]	As part of an accreditation program for general practices patient views were examined. Patients considered that doctors need to improve interpersonal skills, access, availability and patient information.
[70]	The study showed a positive association between accreditation scores and public disclosure of accreditation reports of hospitals.
[71]	Students who attended an accredited paramedic program were more likely to achieve a passing score on a national paramedic credentialing examination.
[72]	There were significant positive relationships between accreditation affiliation of nursing programs and membership in professional nursing organizations and between accreditation affiliation of nursing programs and major contributing factors used to select accrediting agencies.
[73]	A re-accreditation program was having beneficial effects (increasing the amount and type of activities) on the continuing medical education activities of many participating general practitioners.
[74]	Graduates from accredited nursing education programs did not perform better than those from non-accredited programs.
[27]	The study examined the small hospital accreditation scheme in the United Kingdom. The program (including visits by independent surveyors) was valued by respondents who were also keen to see it continue to evolve.
[29]	Healthcare professionals (physicians, dentists, pharmacists, and nurses) had been facing many problems with multidisciplinary process-related issues of an accreditation standard. Surveyors experienced difficulties in conveying the core quality improvement concepts to the professionals.
[75]	A comparative study of how different accreditation agencies managed surveyors. Surveyors around the world share many common features in terms of careers, training, work history and expectations.

Public disclosure

A study examined the impact of accreditation outcome and public disclosure [70]; key results are presented in Table 6. The work, conducted in Japan, yielded several findings: accreditation scores were positively related to public disclosure of hospital accreditation reports, public hospitals were significantly more likely to publicly disclose than private hospitals, larger hospitals were significantly more likely to participate in public disclosure than smaller hospitals, hospitals in rural areas were more likely to disclose than those in urban settings and disclosing hospitals scored higher than non-disclosing hospitals on measures of patient focused care and efforts to meet community needs. Public disclosure was considered by a majority of respondents as good for consumers and hospitals; however, concern was expressed about the public reaction to lower accreditation scores. A significant number of hospitals who disclosed their accreditation reports perceived that disclosure provides incentives for improvement and increases the credibility of hospitals with their community.

Professional development

A link between accreditation programs and the development of health professionals has been established; key results are presented in Table 6. The association has been shown to be positive [71–73]. However, dissenting findings have been noted [74].

A study revealed that health professionals who received training in an accredited education program were more likely to pass a professional credentialing exam than their colleagues in a non-accredited program [71]. Extending this finding, an accreditation program had a small but beneficial impact on the ongoing professional education of health (medical) professionals [73]. Accreditation affiliation of a health education program has been shown to have a positive influence on individuals seeking professional organization membership [72].

The accreditation of a health program appears unrelated to professional performance [74]. No distinction between the conduct of health professionals who trained or did not train in an accredited program could be distinguished in the first

year. Counter-intuitively, in the second year, the performance of those who trained in a non-accredited program was assessed to be better than their colleagues from accredited programs.

Surveyor issues

Research into accreditation surveyors is limited; key results are presented in Table 6. One study examined the skills and qualities of surveyors and the challenges they faced when undertaking accreditation surveys [27]. A comparative study examined the similarities and differences of surveyors across six accreditation programs [75]. A more recent Thai study, which also considered the opinions of health professionals, demonstrated that both groups shared a similar prioritizing of concerns. The surveyors focused more attention on care-related items than did the health professionals, who were focused on multidisciplinary process-related problems associated with the program [29].

Discussion and conclusion

Although we searched in a multi-method, comprehensive manner, electronic research indexing is generally problematic and we may have missed some key literature. Searching relevant accreditation bodies' websites and personally contacting agencies to gather data yielded additional references and information of value.

The necessity for an empirically grounded, comprehensive evidence base for accreditation has long been recognized. Without this, the varying positive and negative views about accreditation will remain anecdotal, influenced by ideology or preferences, and driven by such biases.

This review of health care accreditation research literature reveals a complex picture. There are mixed views and inconsistent findings. Only in two categories were consistent findings recorded: promote change and professional development. Inconsistent findings were identified in five categories: professions' attitudes to accreditation, organizational impact, financial impact, quality measures and program assessment. In the remaining three categories—consumer views or patient satisfaction, public disclosure and surveyor issues—we did not find sufficient studies to draw conclusions.

A positive note to emerge from this research has been the identification of a number of national health care accreditation organizations and researchers presently engaged in empirical activities. They seem to be engaged in purposeful work leading towards constructing an extensive evidence base.

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