The role and impact of accreditation on the healthcare revolution

O papel e o impacto da acreditação na revolução da atenção à saúde

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Abstract

Healthcare has, and continues to be, revolutionised. There have been incredible developments in medical knowledge and understanding of physiological processes, accompanied by spectacular advances in technology. Adding to these, insights from manufacturing and other industries, and lessons from organisational development, psychology and social science disciplines have illuminated how health professionals collaborate and coordinate, and interact with patients and their families, and how these can be further improved. The regulation of healthcare, and in particular the accreditation of healthcare organisations, have made important, and possibly undervalued, contributions to the ongoing revolution. This paper examines this revolution and considers the question: what has been the impact of accreditation on the quality of care? A critique of the empirical evidence for accreditation, identifying gaps in our understanding and discussion of the lessons learned, is undertaken. The challenges facing accreditation agencies and their stakeholders in their efforts to advance the sustainability and credibility of accreditation programs are considered.

Resumo:

A atenção à saúde tem sido e continua a ser revolucionada. Tem ocorrido incríveis desenvolvimentos no conhecimento médico e na compreensão dos processos fisiológicos, acompanhados por avanços espetaculares na tecnologia. A estes acrescem as percepções da indústria e as lições apreendidas sobre desenvolvimento organizacional, psicologia e disciplinas das ciências sociais que têm destacado como os profissionais de saúde colaboram e coordenam e interagem com os pacientes e suas famílias, e como estes aspectos podem ser melhorados. A regulação do cuidado à saúde, e em particular a acreditação de organizações de saúde, tem feito importantes, e ainda possivelmente desvalorizadas, contribuições para a revolução em curso. Este trabalho examina esta revolução e considera a questão: o que tem sido o impacto da acreditação da qualidade do atendimento? É realizada uma análise crítica da evidência empírica para o credenciamento, identificação de lacunas na nossa compreensão e discussão das lições aprendidas. São considerados, ainda, os desafios enfrentados pelas agências de acreditação e suas partes interessadas nos seus esforços para fazer avançar a sustentabilidade e a credibilidade dos programas de acreditação.

Key words: accreditation, healthcare, research, quality and safety

Palavras-chave: acreditação, atenção à saúde, pesquisa, qualidade e segurança

INTRODUCTION

Healthcare has undergone a significant revolution within the last fifty years. Reflecting the changes, the care provided and, indeed, the discourse of health, have expanded and become more complex. For example, hospitals have become known as acute care facilities[1-2] and the care afforded is largely unrecognisable from that witnessed mid last century. There have been radical transformations in how health professionals collaborate, coordinate and provide care, and interact with patients and their families. Recognition that care is delivered by interprofessionally-oriented teams in complicated organisational cultures is at the heart of this.[3-6] The healthcare revolution has been driven by four significant developments: advancement of medical knowledge and skills; development of medical and information technologies; improvements in the organisation and management of care; and, the regulation of practice safety and quality, including the accreditation of organisations. The purpose of this paper is to reflect on the healthcare revolution through these developments and then to address the question: what is the impact of one ubiquitous improvement method, accreditation, on the quality of care? To answer this question we review the empirical accreditation knowledge base, identifying gaps in understanding and discuss the lessons learned. In doing so we consider the challenges facing accreditation agencies and their stakeholders in their efforts to advance the sustainability and credibility of accreditation programs, and ultimately to contribute to further transformation of care.

THE HEALTHCARE REVOLUTION

Advancements in medical knowledge and skills

Across the twentieth and into the twenty-first century, advancements in medical knowledge of anatomy and physiology, intervention skills and understanding of disease processes have been significant. Two examples will demonstrate the point. A range of surgical interventions to the heart have been conducted from the late 1890s onwards.[7] The first successful open heart surgery, however, did not take place until 1952 at the University of Minnesota, United States of America (USA).[8] Since this beginning, the intervention rate has grown almost exponentially so much so that in 2009 in the USA alone there were more than 7,400,000 interventions for heart problems.[9] Similarly, in the last sixty years understanding of disease processes has expanded considerably. Penicillium notatum was first noted to be an antibacterial agent in 1826 by Ernest Duchense. In 1928 Alexander Fleming published his experimental results of using the mould and suggested that it might have treatment benefits if it could be produced in significant quantities. This work laid the foundation for the principle

that lead to medicines that could overcome disease-causing bacteria inside the body. However, it was not until the early to mid-1940's onwards when penicillium could be mass manufactured that it became widely available.[10] The introduction of the use of penicillium reduced the death rate of pneumonia from 60-80% to 1-5%.[11] Through this expansion of knowledge and skill diseases, illnesses or injuries that prior to the late twentieth century regularly resulted in significant incapacity or mortality have been able to be overcome.

Development of medical and information technologies

The development of medical and information technologies have been critical factors in revolutionising healthcare. The capacity to create images of the human body and physiological processes, activities once unimaginable has become routine. In 2010 there were over five billion medical imagining (x-ray) studies.[12] A development from the x-ray machine, computed axial tomography, or the CT-scanner, was developed in 1972 and became in use in 1974. There were three million CT-scans conducted in 1980 and this figure grew to become more than 72 million scans in 2007.[13] Information technologies have similarly played an important role. The first computer was developed in 1946, weighed 27 tonnes and was 156m^2 in size. It cost US$500,000, which adjusted for inflation, in 2010, is nearly US$6 million. The first portable computer emerged in 1975, and while the first laptop in was produced 1983, it was only from 1990's onwards that the laptop began to be widely used.[14] Computers, a little more than 35 years later, and the even more recently the speciality of health informatics, are now taken for granted within the healthcare industry.[15] Creating, managing and tracking patient information, care processes, health outcomes and clinical indicator data became routine through the combined impact of medical and information technologies.

Improvements in the organisation and management of care

The organisation and management of care has also undergone significant changes, many of which have been considered, at times, innovations. For example, the first intensive care unit (ICU) was established in 1953 in Copenhagen to manage a polio epidemic.[16] In the USA the initial ICU was founded in 1955 in Darmouth, New Hampshire.[17] ICUs are now found in all major acute care facilities; they are integral to the definition of a tertiary hospital, and are a norm of the healthcare landscape.[15-16] Particularly since the end of the 1960's onwards insights and techniques from manufacturing[18] and, more recently, aviation,[19] have been imported into the healthcare sector. Organisational development theory,[20] human resource development,[21] continuous quality improvement,[22] systems thinking,[23] distributed leadership,[24] lean

thinking,[25] professional accountability,[6] organisational governance - renamed clinical governance in healthcare,[26] sociopolitical theory[27] and interprofessional collaboration[28] are but some of the many ideas, trends and developments that have shaped the evolution of healthcare organisations. But it is harder to measure the effects of these reforms on outcomes for patients.

In an ongoing cyclical process, developments in knowledge, technologies and intervention capacities have shaped and reshaped forms of healthcare organisation. Additionally, community expectations of healthcare have been, and are being, continually revised by these factors.[29] These influences together resulted in the increasing politicisation of healthcare, which in turn has contributed to reorganisation of systems and individual institutions.[30] At times, the benefits and outcomes of this reorganisation activity have been questioned. Nevertheless, these influences and developments have contributed to improving the functioning and management of healthcare organisations over time. Hospitals, particularly acute care hospitals, are now recognised as perhaps the most intricate, technologically complex, multi-professional, multi-layered organisations in human history. As medicine has changed from a cottage industry, so hospitals have transformed into high-tech citadels.

Regulation of practice safety and quality

A further significant factor that has contributed to the revolution has been the regulation of healthcare. Regulatory options, represented through the image of a pyramid (Figure 1), progress from self-regulation, or voluntary actions, through to the use of legislation and laws by governments to direct the conduct of individuals and organisations.[1] Regulation includes the following options: legislation; the authorisation, licensing and registration of health professionals; credentialing (domains of practice); and certification and accreditation of individuals, services and organisations.

Figure 1

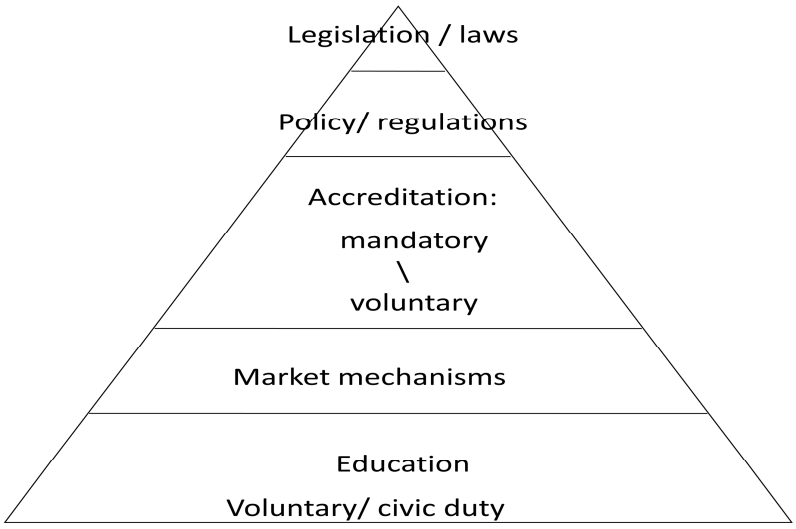

Figure 1. The regulatory pyramid

The regulation of healthcare has emerged and expanded for a number of reasons including the growth of health professions and services in both number and scope, and in response to practice scandals and patient safety inquiries identifying avoidable injury and death.[2] Regulation, through a variety of mechanisms, offers governments a range of strategies to influence 'at a distance' the provision and delivery of services.[3] This broad approach to regulation has become known as 'nodal governance',[4] where the influences of independent regulatory strategies combine to improve the quality and safety practices of individuals, services and organisations.[5]

Nestled centrally within these regulatory options is the accreditation of services and organisations. Accreditation is a mechanism that seeks to reassure external stakeholders that quality and safety standards are demonstrated. Accreditation has been defined as "the formal declaration by a designated authority that an organisation, service or individual has demonstrated competency, authority or credibility to meet a predetermined set of standards."[5] In the healthcare field alone, accreditation is practiced in more than 70 countries, and there are more than 22 national bodies and one international organisation – the International Society for Quality in Health Care – devoted to advancing quality through this regulatory strategy.[31] External organisational and clinical accreditation standards are considered necessary to promote high quality, reliable and safe products and services.[32-33]

What is the impact of accreditation on the quality of care?

The continual spread of accreditation as a regulatory strategy in healthcare is one fact that is mobilised by supporters to demonstrate that it is regarded as effective in improving the quality of care. Since beginning in the USA in 1951 there are now more than 40 acute care accreditation programs globally.[34] The advocates of accreditation programs can tender a positive response, saying programs drive continual improvements in organisational and clinical performance over time (Figure 2). The critics can respond differently, asserting that organisational and clinical performance, or the activities to address accreditation requirements, peaks and troughs in tune with the accreditation survey (Figure 3).

Figure 2

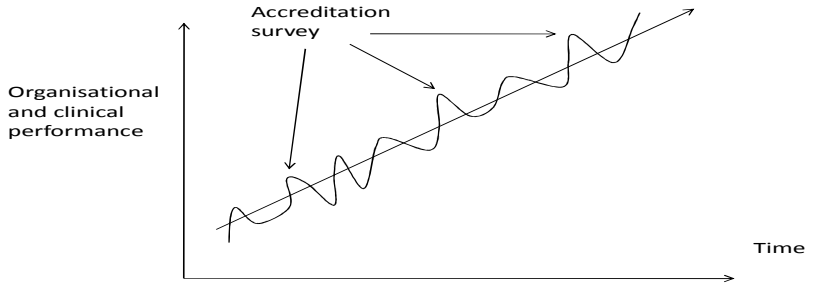

Figure 2. Advocates claim regarding the positive impact of an accreditation program on organisational and clinical performance

Figure 3

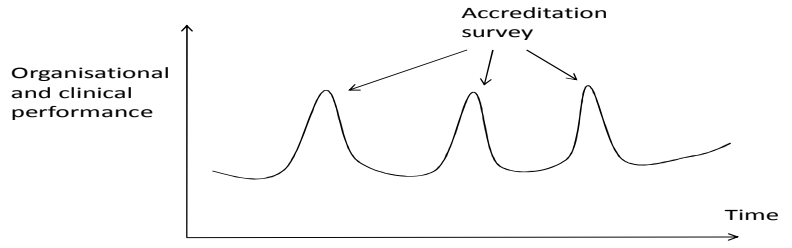

Figure 3. Critic's assertions of variation in organisational and clinical performance due to accreditation programs

Can we settle such disputes and answer the question, what has been the impact of accreditation of the quality of care? Assessing the empirical evidence, a more ambiguous

conclusion is drawn. More than 33,000 articles on healthcare accreditation were initially identified in a 2008 systematic review of the literature. When the selection criteria 'empirical papers' was applied, the collection reduced to around 3,000. Analysis revealed the majority of these were discussion papers or commentaries, with only 66 empirical research studies remaining.[31] The selected research literature was classified into 10 categories. Looking closely at the individual categories revealed three with insufficient studies to draw conclusions, four with inconsistent findings and only two with consistent findings (Table 1). Research published since the review has not significantly clarified further the situation.

Table 1. Empirical accreditation research literature analysis

Category	**Assessment of findings**
Survey and surveying issues	Inadequate studies to assess
Public disclosure	Inadequate studies to assess
Consumer views or patient satisfaction	Inadequate studies to assess
Program assessment	Inconsistent
Quality measures	Inconsistent
Financial impact	Inconsistent
Professions' attitudes to accreditation	Inconsistent
Organisational impact	Inconsistent
Promotion of change	Consistent
Professional development	Consistent

Accreditation programs were noted to consistently have a small positive effect to encourage and support professional development. Similarly, the promotion of change in organisations, that is, the improved organisation of facilities, guidelines and policies was identified as a consistent outcome of accreditation programs. The assessments for the remaining seven categories were inconclusive, with different categories having studies being inconsistent in their findings or there not being sufficient studies to draw conclusions. Five of the categories had inconsistent findings. Professionals have supported accreditation programs, for example, describing them as a strategy for promoting and making transparent quality and collegial communication and decision making. Critics have raised concerns about program costs, reliability issues and outcomes, at times describing them as bureaucratic reporting mechanisms. Similarly, the organisational impact of accreditation programs has mixed findings, with improvements noted and not recorded in studies. The financial impacts generate considerable debate with the findings showing smaller organisations bear a

proportionally greater cost than larger organisations for participation in an accreditation program. However, the counter claim is made that the cost should be considered part of an organisation's investment in safety and quality, and from this perspective a different conclusion is reached. The link, if any, between quality measures and accreditation programs was not clear. Some studies demonstrated consistency between the two, showing improvement in quality management practices. Other studies found no direct or indirect association. The impact, it would seem, is variable or dependent upon the specific outcome measure examined. Finally, the assessment of accreditation programs has also produced variable results. At times the value and results of programs have been questioned and in other cases positively assessed. There is increasing recognition of the impact of the broader health system and country culture in which the program exists, on program assessments. The low number of studies in three areas, that is, survey and surveying issues, public disclosure and consumer views or patient satisfaction, meant the reaching of firm conclusions for these topics is premature. More recent research has noted that program, personnel, organisational and individual factors influence reliability in surveying.

WHAT ARE THE LESSONS LEARNED?

In effect, the diversity of findings in the current evidence base reflects how accreditation programs are complex interventions, applied in diverse health system and country contexts, to shape both organisational and clinical outcomes. Different studies, undertaken in similar and different ways, have examined the range of program components and sought at times to relate some of them to other organisational and clinical measures. In doing so, we have a set of complex findings across multiple categories that sometimes reinforce and sometimes diverge from each other. We have evidence that shows that accreditation programs improve organisational and clinical performance in some circumstances but not others. Similarly, we have data about the conflicting and positive regard by which professionals view programs and their intended impacts. Recent insights have illuminated the challenges to promote reliability in surveyor and survey team conduct and assessments.

In short, it is not clear from the evidence about accreditation programs that they inevitably improve health organisations, services or clinical care. But lack of convincing evidence does not mean there are no positive benefits from the investments in accreditation. To put the totality of findings within the broader healthcare context, consider the questions: what would healthcare systems look like without accreditation programs? In what ways would individual organisations and services go about assessing and improving safety and quality without an

accreditation program? How would providers reassure internal and external stakeholders that their care meets predetermined standards? Looked at the problem this way, if we did not have accreditation and standards we would have to invent them.

THE CHALLENGES FACING ACCREDITATION AGENCIES AND THEIR STAKEHOLDERS

Our research[22 24 34-39] and that of others[31] suggests accreditation agencies and their stakeholders face multiple interrelated challenges. First, it is necessary to ensure there is a common understanding of the purposes of their program. Clarifying and explicitly stating the regulation goals of accreditation is important to enable a consistent and coherent focus on programs and their impacts. For example, which parts of a program are aiming to increase safety and the quality of care, develop organisational capacity and systems, monitor management and clinical practices or provide government an external audit of healthcare organisations?

Second, an examination of how an accreditation program is supported or constrained by the healthcare system within which it operates is important. There is recognition that the broader healthcare culture, as well as governmental policy, health professional expectations and involvement, financial arrangements and community expectations can each impact on the operation of accreditation programs.

Third, a key challenge is the implementation of the accreditation program, including whether it is voluntary or mandatory, and the rigidity and flexibility of components within it. The expectations for enrolment in a program and what participation involves, needs adequate consideration. Additionally, addressing the issues associated with surveying, including sustainability of the surveyor workforce, promoting reliability of assessments and role focus, that is, regulator, assessor, evaluator, educator or combination of several, is necessary to maintain the credibility of a program.

Fourth is the challenge of addressing the issue of what are the organisational resources, both financial and human, that are required to be directed to safety and quality activities. In particular, decision-makers need to clarify if participation in an accreditation program is to be considered part of an organisation's routine activities and measure the cost and benefits of safety and quality initiatives.

Fifth, it is important to consolidate and expand on the evidence base for accreditation to promote the legitimacy and credibility of programs. The challenge is to identify and quarantine resources for research and evaluation of accreditation. The design, execution and

publication of rigorous, convincing studies into accreditation, surveying and standards must accelerate in order to create the evidence base needed to drive further improvements in organisational and clinical performance.

CONCLUSION

The healthcare revolution has fundamentally changed how care is organised and delivered, and the community's expectations for increased safety and quality. In this revolution an important contribution has been made by the expansion of healthcare regulation strategies and, in particular, the use of accreditation programs. Empirical research findings have shown that accreditation programs are complex organisational interventions, shaping both organisational and clinical performance. They enable institutions to self-govern and simultaneously demonstrate external accountability for their safety and quality initiatives. However, the empirical evidence base for accreditation is an incomplete patchwork, with some aspects clearer than others. Several significant challenges face accreditation agencies and their stakeholders in their efforts to advance the sustainability and credibility of accreditation programs. At the centre of this is the evidence base for accreditation. Further research evidence is necessary to address the challenges, impel ongoing debates and generate new ideas for improvements in care and outcomes.

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