

Improving the quality of health care through practice guidelines: to what extent systematic reviews support health policy?

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Abstract

Background: The evidence-based medicine movement has extended its influence to other fields. In the area of quality improvement, the evidence-based approach stimulated the diffusion of practice guidelines as a relevant policy tool. Concurrently guidelines have become the object of a large body of research, including systematic reviews.

Objective: To explore to what extent systematic reviews on guideline implementation strategies support health policy decisions in this area.

Methods: The use of systematic reviews in terms of influencing decisions concerning quality of care will be examined by focusing, in particular on two dimensions – guidelines as policy tools and guidelines as an object of research - and finally to what extent these two dimensions match.

Results/Discussion: We highlight three aspects of mismatching between research and policy: the characteristics of guidelines, the relationship between guideline development and implementation and the type of research question addressed. These aspects represent conceptual obstacles that further challenge the adoption of an evidence based approach and limit the use of systematic reviews in supporting policy decisions in the area of quality improvement.

Key words: evidence based policy, systematic reviews, quality improvement, practice guidelines

Introduction

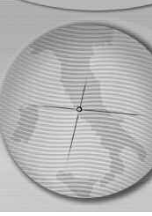
Over the last decade we have witnessed the emergence of the evidence-based medicine (EBM) movement. According to EBM principles, clinical decisions concerning individual patients should be based on the best available evidence rather than customary practices or personal beliefs [1]. Clearly defined procedures, generalizing (more or less explicitly) the application of good epidemiologic principles, methods, and techniques, characterise the EBM approach [2]. This movement led a major cultural change in medicine, and not surprisingly extended its influence to the area of public health (Evidence Based Public Health - EBPH). Thus, EBPH has been defined as the conscientious, explicit and judicious use of current best evidence in making decisions about the care of communities and populations in the domain of health protection, disease prevention, as well as health maintenance and improvement [2].

Just like in the typical clinical area, the public health version of the evidence based movement has had at least two major implications: on one side the relevance attributed to systematic

reviews as a powerful tool to synthesise all of the available information on interventions' effectiveness and on the other, the assumption that information drawn from those sorts of efforts could effectively guide health policy decisions.

Indeed, the whole area of public health has a number of quite distinctive features which can make the adoption of the evidence based paradigms difficult. As others have already pointed out [3,4], there are notable differences between the two disciplines of medicine and public health, some key aspects of the latter being: 1) a focus on populations and communities rather than individuals; 2) multi-component and complex rather than single interventions; 3) highly contextual specific effectiveness; 4) the long-term nature of the outcomes of the interventions; 5) the involvement of many participants such as health professionals from various sectors, policy makers, citizens, etc.

Within the field of public health, the area of health service organisation and quality improvement has been among the first in adopting an evidence based approach, thanks also to its proximity to the clinical environment in which EBM was originally developed. Quality



improvement shares a number of features with other sectors of public health, including programmes implemented at the systems level, the involvement of several stakeholders (clinicians, managers and policy makers, patients) and a focus on changing behaviours. Indeed, a substantial body of research in this area focuses on assessing the effectiveness of interventions aimed at changing health professionals' behaviours, mainly through the adoption of a wide range of strategies targeting the implementation of practice guidelines. Such a body of primary research has provided the basis for conducting a number of systematic reviews [5,6], and even overviews (i.e. a type of systematic review of systematic reviews) [7,8], thanks also to the efforts undertaken within the context of the Cochrane Collaboration [9].

A great deal of attention is paid in this context to practice guidelines. That is by no means surprising, given that over the last 20 years we have been witnessing the widespread diffusion of guidelines developed by professional bodies, government organizations, research institutions, or, at a more local level, developed under the aegis of health authorities or groups of providers.

In this paper, we explore to what extent information drawn from systematic reviews on the effectiveness of guidelines implementation strategies can actually support health policy decisions concerning the quality of care. In general, we'll focus on the extent to which how some key issues concerning the adoption of guidelines have been framed within the research context, matching how these same issues are considered in the world of health policy.

In particular, in this paper we contend that:

- while guidelines are a dynamic and evolving policy tool, as a research object they are instead, treated as a static instrument;
- despite the premise that guideline research acknowledges the role of contextual factors in influencing the effectiveness of implementation strategies, it fails in considering implementation as a policy process and in taking into account factors relevant to the latter;
- the research questions addressed do not always fit with the actual policy goals.

Guidelines as a policy tool vs guidelines as a research object

Addressing the issue of the relationship between policy and research in the area of practice guidelines is made complex by the fact that the notion of guidelines is less obvious than it would appear at a first glance.

The definition of guidelines that is most widely quoted is the one proposed by the Institute of Medicine in 1992, stating that practice guidelines are systematically developed statements to assist clinicians and patients in clinical decisions [10]. Indeed, a wide array of different policy instruments can be included under such a generic definition, ranging from guidelines used merely as educational tools, to those explicitly aimed at managing professional behaviours [11]. Thus, on one side we have guidelines issued by specialty societies, mainly aimed at providing individual professionals with scientific information but by no means intended to constrain their decisional autonomy, while on the other there are guidelines used for administrative regulatory purposes. In this second case, professional autonomy is subjected to explicit limitations and guideline recommendations mark the boundaries between professionals' behaviours/decisions which are "acceptable" and "not acceptable" to the system.

In this perspective, guidelines in the health policy world are a sort of "dynamic technology" taking different shapes according to the policy context in which they are used.

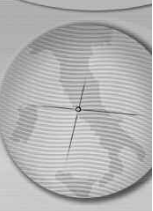
What is worth noting, is that this dynamic feature of guidelines, which is likely to be highly influential on the way in which they are accepted, and therefore complied with, by their targeted audience, is not considered in the research context. Here the assessment of the effectiveness of specific implementation strategies is typically presented without reference to the overall policy context in which guidelines were implemented. When reference to the contextual factor (if any) is made, it is strictly limited to the organisational aspects of the intervention clinical environment.

While it is reasonable to assume that the same implementation strategy will be more or less likely to succeed, depending on whether mechanisms are in place to encourage the paying of systematic attention to quality of care and to its improvement, this aspect is systematically overlooked in current research.

The link between guidelines development and guidelines implementation

Another relevant limitation of research, in the of area of practice guidelines, is that implementation is seen in isolation from the development stage. In other words, it fails to acknowledge that development and implementation are part of the same policy process.

This is at odds not only with the daily experience of those facing the challenge of changing professional behaviours and improving



quality of care, but also with the available empirical evidence underscoring the relevance of the characteristics of the message conveyed (i.e. the source, the content, etc) to its acceptance, as shown by findings from surveys on physicians' opinions and attitudes towards guidelines [12].

In the design and organisation of programmes aimed at encouraging the use of practice guidelines, a great deal of attention is paid to assuring that recommendations come from a source credible to the targeted audience and that the message is packaged in such a way that it is not perceived as being contrary with the dominant set of values [13,14].

However, the characteristics of the messages conveyed through practice guidelines are constantly overlooked in studies (and therefore in efforts aimed at systematically reviewing those studies) on the effectiveness of implementation strategies. Again, the impact of the intervention is seen in isolation from factors which are relevant to its results in terms of professional behaviour change. Typically little information, if any, is provided on how the implemented guidelines were developed, which professionals were involved and how they were selected.

Research questions vs policy goals

The main message to be drawn from systematic reviews in this area is that implementation strategies should be tailored to the specific characteristics of the clinical environment, targeting the contextual factors that are likely to enable or hinder the behaviour change desired [5-7,15]. This implies that there is no magic bullet and interventions which have been proven to be successful in changing a specific behaviour (let's say drug prescribing) in a specific context (a USA hospital, for example) may not work when used to change a different behaviour, or even the same behaviour but in a different context.

This message poses a number of problems for health policy.

One should be able to design a specific implementation strategy for each professional behaviour considered to be a quality problem and therefore call for change. Quality problems occur simultaneously and call for strategies that are able to cope simultaneously with all of them, and professional behaviours which need to be changed, in order to improve quality, are never addressed in isolation i.e. one at a time. This is why policy makers are more interested in changing systems, rather than individual professional behaviours. Despite this, research has in the most part focused on changing the behaviours of

individuals or groups of health professionals, policy however has a different goal, which is to shape clinical environments, in terms of organisation, management, professionals' roles and relationships.

Conclusions

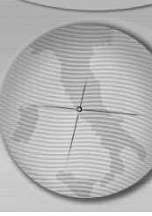
Systematic reviews are indeed a powerful and valuable tool not only to establish the overall effectiveness of quality improvement interventions, but also to critically appraise the internal and external validity of primary research findings and the extent to which the questions addressed by those actually fit with the information need of the end users⁶. However, systematic reviews inevitably reflect the limitations of the primary research on which they are based.

In this paper, we outlined a number of reasons why systematic reviews in the area of quality improvement may fall short in supporting the development of an evidence-based health policy. However, at the same time we highlighted the value of this methodological approach. Indeed, a critical appraisal of a whole research area is possible only through a comprehensive analysis that takes into account the whole body of available research, which is exactly what systematic reviews provide. Furthermore, by highlighting the limitations of primary research it may provide a stimulus for improvement and guide better research in the future. The widespread awareness of the relevance of the contextual factors in leading to successful guideline implementation strategies has been to a large extent a by-product of the findings made available by systematic reviews. The same holds true for the increase in attention being paid to interventions aimed at changing health care organisations, rather than merely targeting health professional behaviours. This is documented in the research questions addressed by systematic reviews that have already been conducted, or that are ongoing, and which are available in the EPOC module of the Cochrane Library [9].

Lastly, the issues considered in the paper concern the extent to which an evidence based health policy is actually possible. We outlined some of the issues which could limit the role of evidence in decisions relating to health care quality.

However, there are indeed others, which are possibly more fundamental.

Public health interventions, including those concerning quality improvements, by their very nature, are inextricably and directly linked to the complexity of the policy environment, with its interplay among different values, beliefs and ideologies. The interventions represent the



choices taken by a community in relation to health promotion and maintenance; as such they implicitly represent how a society views itself in its individuals, and what their goals are. Thus, there is an inevitable tension between scientific rigour and the need to take into account non scientific (but nevertheless socially relevant) factors in the decision making process; as ideological, political, economical, and cultural factors influence the uptake and interpretation of the evidence in the decision making process.

Nevertheless, while the weight of its influence may remain debatable, nobody would disagree that empirical evidence should have a role in the complex process of health policy decision making.

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