

Evidence-based health policy: A preliminary systematic review

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Abstract

Objective: The development of evidence-based health policy is challenging. This study has attempted to identify some of the underpinning factors that promote the development of evidence based health policy.

Methods: A preliminary systematic literature review of published reviews with 'evidence based health policy' in their title was conducted using PubMed as a search engine. The identified papers were critically analysed using a 'realist review' method, driven by the question 'What works for whom in what circumstances and in what respects?'

Results: Eight published reviews met the search criteria. Following the 'realist review', six factors that underpin the development of evidence-based health policy were identified. They are: (i) the importance and value of having multi-disciplinary teams; (ii) the need to have a broad evidence base to draw upon; (iii) the circular relationship between research and policy; (iv) the need for policy implementation to be locally sensitive; (v) the benefit of stakeholder involvement; (vi) support by the national Government.

Conclusion: The six factors identified provide a framework for consideration for those whose work involves evidence-based health policy development. As a corollary, the failure to satisfy these factors in evidence-based health policy development may lead to resistance to policy change and further work is warranted.

Keywords

evidence-based health policy, underpinning factors

Introduction

Evidence-based clinical medicine has developed over the last 40 years for a number of reasons¹ including: (i) escalation in the amount of medical evidence; (ii) the need to synthesize and review the evidence; (iii) problems of bias such as publication bias or selection bias; (iv) responding to criticisms that interventions produce harm; (v) the culture of litigation and resource constraints. By contrast, evidence-based health policy is a more recent development and one of the associated challenges is that it is set within a wider context of complex decision-making processes².

Another challenge is that evidence-based health policy development cannot ignore the hierarchy of evidence. Systematic reviews of randomized trials and meta-analyses are widely accepted as yielding the strongest evidence of an effect of an intervention³. However, some situations do not

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readily lend themselves to being tested by randomized trials⁴ and there may be other sources of evidence, such as observational studies, which might be used to help inform policy development⁵. These challenges and tensions about the use of evidence highlight the importance of defining a range of factors which underpin the development of evidence-based health policy.

The few systematic reviews of policy that have been published cover a range of issues including policy making at a country level^{6,7}, paediatrics⁸ and cardiology⁹. One of the consistent conclusions that appear to emerge from these publications is that valid information is essential in developing policy and yet the data that is available is often limited. Owing to this, policy areas often call for more research to be conducted and sometimes models are used to predict the impact an intervention might have on a population. However, taking the example of coronary heart disease, models appear to vary widely in their scope and reliability⁹, which may present further challenges to the process of developing evidence-based health policy.

Evidence-based health policy development therefore presents a range of challenges. This study has attempted to identify some of the underpinning factors that promote the development of evidence-based health policy.

Methods

This preliminary systematic literature review was conducted using the PubMed website (<http://www.ncbi.nlm.nih.gov/>) as a search engine to identify published papers. The search strategy identified published papers which specifically cited the four key words of '*evidence based health policy*' in their title. These key words were specifically chosen in order to identify published papers that would be likely to provide helpful insights into the factors which underpin how evidence-based health policy has been developed in different settings.

The search was limited to reviews in order to ensure that a manageable number of published papers were identified. Another limit was that the papers were published in the English language and in the last decade (July 1998–July 2008) in order to ensure that they were recent.

The published papers identified in the search were then obtained in a full hardcopy format and organized into chronological order starting with the most recent. The critical analysis of the papers was undertaken using a 'realist review'. The 'realist review' is driven by the question '*What works for whom in what circumstances and in what respects?*'¹⁰. The 'realist review' method extracts information from published studies using note taking and annotation. The 'realist review' method was used in order to ensure that the factors underpinning evidence-based health policy could be readily extracted from the papers.

In accordance with the 'realist review' method, each paper was then reviewed individually and a summary was prepared which was then subsequently transcribed into an electronic format. Once all of the transcriptions were available, a further 'realist review' was conducted on all of the summarized information. The objective of this overview was to identify underpinning factors based on a summary of all of the available information.

Results

Eight studies were identified and these are summarized in Table 1. The eight studies cover a diverse range of settings and policy issues. These include mental health, sexual health, health service reform at a national level and the political aspects of evidence-based health policy. Such diversity further illustrates the complexity of evidence-based health policy development since issues may vary across different settings, at different times, within different contexts and different themes. The

Table I. 'Realist review' of published papers on 'evidence based health policy'

Policy issue considered (Reference)	Summary remarks
<i>Patient safety and evidence based practice</i> (Talsma A, Grady PA, Feetham S, Heinrich J, Steinwachs DM. Patient safety and nursing shortages within the context of health policy and evidence-based practice <i>Nursing Research</i> , 2008; 57 (Suppl 1): S15–S21).	Healthcare systems need to address inequalities in health outcomes. Of importance is the need to have reliable and consistent data collection for clinical decision making. Another key issue is trust, which is essential to the healthcare system. Patients need to trust healthcare providers and professionals need to trust each other. Of increasing significance is the importance of the needs and value of patients being factored into the provision of healthcare. Collaboration between healthcare professionals, in which nurses may play a central role, is another key issue in order to ensure multi-disciplinary working. A multi-disciplinary approach may help improve the outcome of healthcare systems.
<i>Politics of sexual and reproductive health</i> (Buse, K, Martin-Hilber A, Widyantoro N, Hawkes SJ. Management of the politics of evidence-based sexual and reproductive health policy. <i>Lancet</i> , 2006; 368 : 2101–2103).	This is an important public health issue yet implementation of policies has barriers in the way. Indeed, some cost-effective policies remain to be fully implemented. For policies to be properly introduced requires political awareness. Furthermore, it is unwise to assume that the evidence will speak for itself so engaging key stakeholders is important in order to ensure policy implementation. This would appear to be particularly true in a policy area which is associated with stigma or negative perceptions. This in itself can be a barrier to policy progression which is why it is important to look at the different interests of the key stakeholders.
<i>Lessons learned in Mexico</i> (Frenk J. Bridging the divide: Global lessons from evidence-based health policy in Mexico. <i>Lancet</i> , 2006; 368 : 954–961).	Mexico introduced the Popular Health Insurance (PHI) in 2004. This is a major reform based on evidence that half the population, about 50 million people, lacked health insurance. PHI covers primary and secondary care services and prevents poor people becoming impoverished by healthcare costs. The ABCDE of reform was Agenda, Budget, Capacity, Deliverables and Evidence. Furthermore, it would appear that this work is a good example of a system being reformed using evidence. At a practical level, money now follows people (democratic budgeting) which helps to ensure a balance between efficiency and quality.
<i>Promises and limitations of evidenced-based policy</i> (Anderson LM, Brownson RC, Fullilove MT, Teutsch SM, Novick LF, Fielding J, Land GH. Evidence-based public health policy and practice: Promises and limits. <i>Am. Journal of Preventive Medicine</i> , 2005; 28 (5 Suppl): S26–S30).	Many qualitative and quantitative factors might be considered in shaping policy. However, policies are often shaped when there are gaps in knowledge. This emphasises the importance of having multidisciplinary teams to shape policy. Links between policy and epidemiological outcomes can also be difficult to establish. Socio-political, historical and cultural values also influence policy. One of the key difficulties, however, in shaping policy is to work with available data which may either be limited or not available. An important point is that 'benefits accrue when decisions in public health are based on sound scientific evidence'.
<i>Politics of systematic reviews</i> (Fox DM. Evidence of evidence-based health policy: the politics of systematic reviews in coverage decisions. <i>Health Affairs</i> 2005; 24 (1): 114–122)	A number of organizations such as the Cochrane Collaboration*, AHRQ* and DERP* publish systematic reviews and the latter has an uneasy relationship with the pharmaceutical industry. To influence policy, systematic reviews need publicity, both in the media and in peer-reviewed journals. Reviewers need to be trained in research synthesis and have a broad definition of evidence. In future, systematic reviews of health policy might need to gain more media coverage, have more trained researchers, influence research funding, have more sources of evidence and anticipate possible antagonism from some stakeholders.

(Continued)

Table 1. (Continued)

Policy issue considered (Reference)	Summary remarks
<i>Mental health policy</i> (Cooper B. Evidence-based mental health policy: a critical appraisal. <i>British Journal of Psychiatry</i> , 2003; 183 : 105–113).	<i>Evidence-Based Mental Health</i> is an example of a systematic review journal. Systematic reviews rely heavily on meta-analyses of randomized trials but the impact of these upon policy seems modest. Furthermore, policy has a context and may produce different effects in different populations highlighting the importance of having a broad evidence base. The author highlights the ongoing debate about evidence-based health care and suggests that it may lead to a bureaucratic system which might subordinate patients.
<i>Evidence-based health policy</i> (Niessen LW, Grijseels EW, Rutten FF. The evidence-based approach in health policy and health care delivery. <i>Social Science and Medicine</i> , 2000; 51 : 859–869).	Systematically collected evidence from health and social sciences drive evidence-based health policy. Economic and impact assessment models also play into the process. Governments have a key role to play in facilitating the introduction of such policies as barriers can exist, such as attitudes and local circumstances. Disease burdens influence how policy development is prioritized. Of importance within policy development is the use of validated methodologies such as health economics which include Programme Budgeting and Marginal Analysis (PBMA). They conclude that healthcare policy making is increasingly evidence-based.
<i>Applying the evidence base</i> (Lohr KN, Eleazer K, Mauskopf J. Health policy issues and applications for evidence-based medicine and clinical practice guidelines. <i>Health Policy</i> , 1998; 46 (1): 1–19).	Research and the subsequent systematic review of evidence are needed for the production of evidence-based guidelines. These guidelines can then produce two outcomes, namely their implementation via policy or possibly to influence the research agenda. Any subsequent research then becomes incorporated into updated systematic reviews so the process is cyclical. In addition, a four-tier level of decision making is proposed: (1) allocation of resources for the needs of society; (2) allocation of resources for health care; (3) allocation of patient care resources; (4) allocation of resources to specific interventions.

Source: PubMed search of review papers with evidence based health policy in title (last repeated 23 July 2008)

*Cochrane Collaboration is an international organisation promoting evidence-based practice while the Agency for Health Care Review and Quality (AHRQ) and Drug Effectiveness Review Project (DERP) are based in the United States of America. DERP also covers Canada.

very broad application of evidence-based health policy also highlights the importance of this matter and the value of identifying underpinning factors.

A number of general themes appear to emerge from Table 1 in terms of factors underpinning evidence-based health policy. They are: (i) the importance and value of having multi-disciplinary teams; (ii) the need to have a broad evidence base to draw upon; (iii) the circular relationship between research and policy; (iv) the need for policy implementation to be locally sensitive; (v) the benefit of stakeholder involvement; and (vi) support by the national government.

Discussion

This preliminary systematic review identified six factors that appear to be important in the development of evidence-based health policy. Furthermore, this is the first report to combine the methods of a systematic review and 'realist review'.

The six identified factors provide a potential framework on which evidence-based health policy may be developed. All of the factors are important for those working in evidence-based health policy development. For example, multi-disciplinary working is often a core part of the remit associated with practitioners in health education and health promotion. The need for a broad evidence base is also crucial to ensure that policy is developed appropriately and in locally sensitive ways, taking into account resource issues. However, there is also the need to evaluate the impact of policy through research and then amend policy if required. This also highlights the need to have stakeholders involved in order to minimize barriers to policy implementation and government support carries advantages, for example by ensuring that there is consistency with the political direction.

This study might be developed in a number of ways including searching for publications using other engines, also including non-English language publications and using different key word searches. Such further work, which may also consider using the 'realist review' method, might help inform and support the development of evidence-based health policy across countries and across settings.

In conclusion, evidence-based health policy development is both important and challenging. The six factors identified provide a framework for consideration for those whose work involves evidence-based health policy development. As a corollary, the failure to satisfy these factors in evidence-based health policy development may lead to resistance to policy change and further work is warranted.

Note

1. Carmarthenshire LHB has now been merged with other organisations to form Hywel Dda Health Board.

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