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## FACTORS INFLUENCING THE USE OF RESEARCH FOR POLICY-MAKING: AN UMBRELLA REVIEW PROTOCOL

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#### **ABSTRACT**

Over the last two decades, there has been an emphasis on the concept of evidence-based policy. However, evidence-based policy remains a major challenge and a gap exists in the systematic translation of scientific knowledge into policies. The awareness of this evidence-policy gap has led to a proliferation of research. As the demand for evidence-informed policy-making escalates, so does the need to unveil the mechanisms by which we can influence the process of research uptake. In this paper, we present a protocol for a systematic review. We aim to conduct an umbrella review/overview of reviews about factors affecting the use of research by policy-makers and/or decision-makers in health, education and social services areas. The results of this review could contribute to improving the utilisation of research in the policy-making process, by identifying factors that are most important in influencing the uptake of research by policy-makers.

#### **BACKGROUND**

Over the last two decades, there has been an emphasis on the concept of evidence-based policy, stressing the need for basing practice on knowledge of what works. In the UK, evidence-based policy has a long tradition in the administration of public services. With different degrees of development, a research culture exists in sectors such as health, social care, social work, education, justice, welfare, among others (Nutley and Davies, 2000).

Nevertheless, the need for an increased use of research to improve the health of the population has been acknowledged globally. For example, the World Health Organization brought together Ministers of Health and representatives from 52 countries in Mexico City to discuss ways in which research could contribute to strengthen health systems and achieve the Millennium Development Goals (*Ministerial Summit on Health Research, 2004*). One of the key messages of the Mexico Statement is:

"The findings of high quality research should be not only accessible to decision makers but also communicated in ways that effectively inform policy, public health, and health care decision making. Research results must be published, documented in internationally accessible registers and archives, and synthesized through systematic reviews" (p.1).

However, the pathway between production of scientific knowledge and the applicability of such knowledge is not straightforward (Research and Policy in Development (RAPID) programme, 2004, Dobbins et al., 2001b, Graham et al., 2006). The policy-making process is complex, with many obstacles limiting the use of evidence. Despite evident progress, evidence-based policy remains a major challenge and gaps exists in the systematic translation of scientific knowledge into policies (Hanney et al., 2003, Campbell et al., 2007, Moat et al., 2013, Oliver et al., 2014, Brownson et al., 2006, Elliott and Popay, 2000, Greenhalgh et al., 2014, Oxman et al., 2007).

The awareness of this evidence-policy gap has led to a proliferation of research. A need to rethink the way in which evidence is being produced, validated, disseminated and adopted has been raised (Nutley and Davies, 2000, Lomas, 1997, Lomas, 2007, Greenhalgh and Russell, 2006, Bowen et al., 2009). Theoretical thinking has been developed on how to understand and conceptualise evidence-based policy, how to enhance the usefulness of research and how to contribute to the process of knowledge exchange in health-related topics (Elliott and Popay, 2000, Research and Policy in Development (RAPID) programme, 2004, Dobbins et al., 2002, Simpson, 2002, Chambers and Wilson, 2012, Lomas et al., 1993, Greenhalgh and Russell, 2006, Lewis, 2007, Lavis et al., 2006, Greenhalgh et al., 2014).

As the demand for evidence-informed policy-making escalates, so does the need to unveil the mechanisms by which we can influence the process of research uptake. In line with this, several studies had been conducted to explore barriers and facilitators to the use of research by policy-makers (Innvaer et al., 2002, Oliver et al., 2014, Orton et al., 2011, Willison and MacLeod, 1999, Dobbins et al., 2001a, Dobbins et al., 2001b, Dobbins et al., 2007, Campbell et al., 2009, Bowen et al., 2009, Petticrew et al., 2004, Liverani et al., 2013). There is an acknowledgement that, among many other aspects, we need to understand what policy-makers require from research, and how to formulate it in a relevant and policy-oriented language (Thomson, 2013, Campbell et al., 2007). While researchers place a moderate and sometimes low importance on the dissemination of results, for policy-makers this is an aspect of high significance (Brownson et al., 2006).

Parallel to this, an increasing number of initiatives have been designed to reduce the research-practice gap (Grimshaw et al., 2012, Campbell et al., 2007, Sutcliffe and Court, 2005, Orton et al., 2011, Solesbury, 2001, Boaz et al., 2011). Concepts such as diffusion, dissemination and implementation of knowledge have emerged and evolved into a productive field concerned with the translation of scientific knowledge into practice (Lomas et

al., 1993, Mitton et al., 2007). This area conceptualised as "knowledge translation" and recently as "knowledge transfer and exchange" (KT), has grown in popularity, as it looks to ensure that stakeholders use research in their decision-making (Grimshaw et al., 2012, Armstrong et al., 2006, McKibbon et al., 2010). Today, the literature on KT is large (Grimshaw et al., 2012, Graham et al., 2006, McKibbon et al., 2010, Armstrong et al., 2006, Mitton et al., 2007).

The growing claim for evidence-informed policies has then resulted in a substantial volume of research. Considering this large body of evidence, we aim to conduct an umbrella review/overview of reviews (Aromataris et al., 2014, Higgins et al., 2011) about factors affecting the use of evidence by policy-makers in health, education and social services areas. An umbrella review will be valuable to bring together findings from previous syntheses, analysing factors across different levels of influence.

It is important to note that this review does not intend to provide an analysis of all existing barriers and facilitators to evidence-informed decision-making (Bowen et al., 2009). For example, views of researchers will not be specifically addressed in this analysis. The results of this synthesis are intended to inform the design of a qualitative study with policy-makers and therefore, it will focus exclusively on the perspectives of this group of stakeholders. While it is acknowledged that research is only one aspect among many others affecting the process of evidence-based policy-making (Trostle et al., 1999, Sutcliffe and Court, 2005, Campbell et al., 2007), the results of this synthesis could contribute to identifying factors that are important in influencing the uptake of research by policy-makers.

Initially, the review will aim to describe the existent research on this topic by creating a map of existent reviews addressing the issue of evidence use by policy-makers. Following the mapping exercise, we will then synthesise the literature about barriers and facilitators affecting the uptake of research by policy-makers; and lastly, a particular focus will be place focus on summarising evidence about ways of presenting the results of research to policy-makers.

#### **OBJECTIVE**

To identify, appraise and summarise existing research syntheses exploring barriers and facilitators affecting the use of research by policy-makers.

#### **Specific objectives**

- To map the evidence base and scope of existent reviews of the literature on the use of research by policy-makers.
- To appraise and summarise the evidence on factors affecting the use of research for policy-making according to the perception of policy-makers in health, education and social services areas.
- To appraise and summarise the evidence on policy-makers' perceptions about useful ways of presenting findings from research for policy-making processes.

#### **METHODS**

The proposed evidence synthesis will comprise a review of existing review studies, described by the Joanna Briggs Institute as an "umbrella review" (Aromataris et al., 2014), and by the Cochrane Collaboration as an "overview of reviews" (Higgins et al., 2011). In addition to following the standard requirements for an umbrella review, we will also aim to conduct a mapping exercise. Similarly to a systematic mapping, a methodology developed by the EPPI-Centre (Evidence for Policy and Practice Information), we will gather the existing literature to map the distribution and sources of the available knowledge (Bates et al., 2007).

The focus of this review will be on barriers and facilitators for research use, and not on the broader field of knowledge transfer and exchange (KT). KT focuses on the active interaction between researchers and stakeholders, and includes other key players apart from policymakers such as practitioners, patients, family members, researchers and industry (Grimshaw et al., 2012). While we expect to find some overlap with literature on KT, the focus will be on aspects related to policy-makers or decision-makers exclusively.

#### Inclusion criteria

For inclusion in this review, studies should meet the criteria listed below.

<u>Participants:</u> Reviews should include studies conducted among policy-makers or decision-makers. We will consider any group working in governmental sectors and who are in charge of the planning, design or coordination of policies, programmes or services. Reviews including other types of stakeholders, besides decision-makers, will be considered only if the analysis is presented separately according to groups of participants or if the majority of the studies in a review included policy-makers.

<u>Outcomes:</u> The outcomes will include perceptions about factors either limiting or facilitating the use of research findings or products by policy-makers. We will search for and synthesise experiences of policy makers in locating, accessing, using and/or adopting findings from products that describe primary studies or evidence synthesis. In addition, we will synthesis the perceptions and opinions of policy-makers about optimal ways of presenting the findings of research to policy-makers.

**Context:** We will include reviews focusing on policy-making in health, education and social services areas, or about policy-makers using research from the health, education and social sciences areas.

Type of studies: Included studies will be reviews of primary research studies conducted to identify factors affecting the use of research. The reviews could use different types of methodologies, and both quantitative and qualitative syntheses will be considered. Reviews including implementation studies about strategies of KT could be included if there is a clear description and interpretation of the factors affecting the use of research by policy-makers. Papers presenting or describing a conceptual framework will be included only if they were based on or include a review of the literature.

#### **Exclusion criteria**

Excluded papers will be:

- Reviews about decision-making for clinical practice or studies focused only on practitioners' individual decisions but not on policy or decision-makers.
- Conceptual papers, essays, commentaries or letters to the editors that do not include any review of the literature.
- Papers published in languages other than English or Spanish.
- Papers exploring policy-makers experiences with the use of research data but not research outputs such as publications, reports, etc.

Examples of reviews meeting the inclusion criteria are:

- Innvaer, S., Vist, G., Trommald, M. & Oxman, A. (2002) Health policy-makers' perceptions of their use of evidence: a systematic review. *J Health Serv Res Policy*, 7, 239-44.
- Chambers, D., et al., Maximizing the Impact of Systematic Reviews in Health Care
   Decision Making: A Systematic Scoping Review of Knowledge-Translation Resources.

   Milbank Quarterly, 2011. 89(1): p. 131-156.

#### **Search methods**

The systematic search of literature will be conducted in two steps, as described below.

<u>Search in academic databases:</u> We will search using a list of predefined key terms on titles and abstracts on a group of academic databases. The following databases will be explored:

- Applied Social Sciences Indexes and Abstracts (ASSIA)
- Cumulated index of nursing and allied health literature (CINAHL)
- Proquest Dissertation & Theses
- Education Resources Information Center (ERIC)
- International Bibliography of the Social Sciences (IBSS)
- MEDLINE
- PsycINFO
- SCOPUS
- Social Services Abstracts
- The Global Health Library
- Web of Science

In addition, we will also search in these repositories of research syntheses:

- The Campbell Collaboration Library of Systematic Reviews
- The Cochrane Database of Systematic Reviews
- The Database of Abstracts of Reviews of Effectiveness (DARE)
- The JBI Database of Systematic Reviews and Implementation Reports
- Epistemonikos Database

The search strategy will build from four key concepts (research, uptake, policy-makers, systematic review), and will be adjusted taking into account the specifications of each database. Subheadings or descriptors will also be searched and when possible, study filters

will be used to identify reviews. We will also make use of truncation and wildcard symbols.

The search strategy will be:

- **#1.** TI,AB(Evidence OR Knowledge OR Research OR Brief# OR Synthes?s OR "Systematic Review#" OR "Meta Analys?s")
- **#2.** TI,AB(Diffusion OR Dissemination OR Transfer OR Translation OR Uptake OR Utili?ation)
- **#3.** 1 NEAR/2 2
- **#4.** SU.EXACT("Research Transfer")
- **#5.** #3 OR #4
- **#6.** TI,AB("Decision Makers" OR "Decision Making" OR "Decision Takers" OR "Policy Makers" OR Policymakers OR "Policy Making" OR Policymaking OR "Public Policies" OR "Public Policy") OR SU.EXACT("Policy makers")
- **#7.** #5 AND #6
- #8. TI,AB("Systematic Review" OR "Literature Review" OR "Systematic Literature Review" OR "Umbrella Review" OR "Narrative Review" OR "Meta Analysis" OR "Meta Synthesis" OR Synthesis OR "Evidence Synthesis" OR "Synthesis of Evidence" OR Overview) OR SU.EXACT("Systematic Review")
- **#9.** #7 AND #8

All the records obtained from the databases will be exported and managed in EndNote X7.

**Reference list screening:** Lastly, we will also screen the reference lists of the included systematic reviews in order to identify other potential studies. Also, a set of 3-4 key papers will be selected in order to conduct a citation search using Web of Science and Google Scholar.

#### Data collection and analysis

The search, quality assessment and data extraction of the included reviews will be conducted by one reviewer, but decisions regarding the final sample of reviews to include, data extraction forms and synthesis will be approved by a second reviewer. Any queries will be discussed and decided by consensus.

<u>Selection of reviews:</u> The lead reviewer will firstly select potential studies from the screening of titles and abstracts resulting from the searches. The full text will be retrieved for manuscripts meeting the inclusion criteria or when inclusion cannot be decided from the information in the abstract. The full text of papers will then be screened and the list of final included studies will be confirmed by a second reviewer. The procedure will be repeated for manuscripts identified in the reference lists.

<u>Data extraction:</u> A general data extraction form will be designed to collect the following information from the selected reviews: Identification of the study (authors, title, source, year); method of identification (electronic data base or reference list); type or review (qualitative, quantitative, mixed, narrative, non-systematic, etc.); aim of the review; context and characteristics of the population considered; databases searched; number of studies included; analyses; outcomes.

<u>Data synthesis:</u> A synthesis of the data will be conducted using a narrative format, with the support of tabular supplements, figures and a map of the knowledge base. We will draw on methods of qualitative synthesis (Thomas and Harden, 2008) to organise the findings according to major themes of barriers and facilitators identified in the literature and opinions about preferred ways of presenting evidence to policy-makers. We will synthesise the findings for each of the three specific objectives independently.

#### Assessment of methodological quality of included reviews

**Quality of included reviews:** We will assess the quality of the included reviews by using the CASP tool (Critical Appraisal Skills Programme (CASP), 2014). The CASP tool is an easy-to-use instrument consisting on 10 items to help in the appraisal of the quality of a review. Since we expect to include a broad diversity of reviews, we will adapt the tool if possible, in order to make sense of the quality of the papers included.

**Quality of evidence in included reviews:** If possible, we will use a standard approach to assess the overall quality of the findings, such as the GRADE (Atkins et al., 2004) system.

#### **DISSEMINATION OF THE REVIEW FINDINGS**

This research is part of a PhD thesis exploring the use of evidence-syntheses by policy-makers in Mexico. The results of this umbrella review will inform the design of a primary qualitative study with decision-makers from Governmental programmes or services in Mexico, in the areas of education, health or social services. We expect to publish the findings from this review in a peer-reviewed journal.

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