

Increasing the impact of stroke and coronary heart disease research in Europe: an overview of systematic reviews of the health literature.

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Introduction:

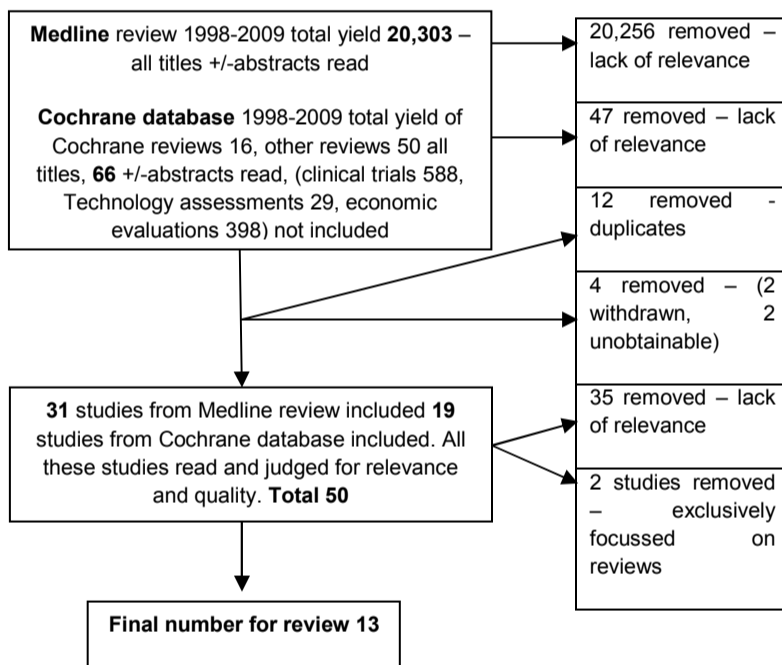
The research problem & the European Implementation Score (EIS) Project:

Despite significant investment in research, challenges remain in translating health research into policies and practices that improve patient care. This research aims to advance the application of evidence-based healthcare in the management of stroke care. First, by identifying best practice in the implementation of evidence-based care at the patient (micro), organisation (meso) and national policy (macro) levels across selected European health care settings. The second stage of the project involves the development and testing of an implementation score for stroke and coronary heart disease research in Europe.

This work represents the first stage of this process; it is an overview of systematic reviews of the relevant health literature on the evidence of effectiveness of currently used implementation methods in translating research findings in to practice. This will be supplemented by a narrative synthesis of the relevant social science literature on the evidence of effectiveness of currently used implementation methods in translating research findings in to practice in healthcare settings.

Methods:

We searched Medline and the CRD 1998-2009 using the same search strategy employed by Grimshaw et al¹ in their 2001 overview of systematic reviews. Like the Grimshaw team, we included reviews focused upon changing provider behaviour – however we had a more explicit focus upon translating research findings in to practice, rather than merely changing behaviour.



Results:

This review of the health literature identified 13 systematic reviews of the evidence of effectiveness of currently used implementation methods in translating research findings into practice. From these 13 reviews, 313 individual studies were included with a range of 10-66 amongst the reviews. We found 21 duplications of primary studies across the overview. RCTs were favoured over non-RCT study designs; however, CCT, B/A & ITS studies were also included. 4/13 studies are Cochrane Reviews.

Clinical focus of studies: 4 papers focus primarily on prescribing. 2 papers focus on Obstetrics. 1 paper focuses on Type II Diabetes. 1 paper focuses on psychiatric guideline implementation. 1 paper focuses on pneumonia guidelines. 1 paper focuses on AHP guideline implementation. 1 paper focuses on Drug & Alcohol professional practice. 1 paper focuses on improving the efficiency of delivery of thrombolysis for acute stroke. 1 paper focuses not on one speciality but on a variety of clinical areas.

The original papers were drawn from a wide selection of countries – however, North American studies predominated, and there was likewise a majority of English language publications. All the studies received good quality scores >4/7 according to the quality criteria employed.

The second review identifies macro level interventions in the health services research and social science literature.

Analysis:

We found very few systematic reviews looking exclusively at implementing evidence-based research findings in to practice. There were a number of reviews we excluded on the grounds that they focused on changing provider behaviour in order to reduce costs, or follow local guidelines which it was hard to verify were evidence-based. The 13 reviews focused on a wide range of clinical specialities. The breakdown of intervention types is presented below.

Intervention type	Number of studies
Combined interventions/multifaceted interventions	10
Multi-professional collaboration/Local consensus process (including guidelines, pt pathways)	9
Use of audit and feedback (A&F)	8
Printed educational material (PEM)	6
Reminders (manual or computerised)	6
Education with different educational strategies	5
Use of opinion leaders	5
Computerised decision support	4
Educational outreach visits	3
Educational meetings/workshops	3
Patient mediated interventions	3
Financial interventions	2
Marketing techniques	2
Mass media	1
Restrictive (prescribing) policies	1

Conclusions:

The reviews identify a fairly consistent set of 'mechanisms' for changing behaviour: guidelines, educational strategies, audit and feedback, opinion leaders, reminders and multi-faceted interventions appear most frequently. These reviews suggest that 'active' strategies are more successful than 'passive' strategies and that multi-faceted interventions may be more successful in implementing research findings in to practice than single interventions.

These reviews tell us little about the contextual factors which help or hinder the implementation process. The social science review focuses on these issues.

In order to improve the impact of research on health policy and practice, it is essential that theories are developed that reflect the diverse mechanisms involved in implementation. With a growing focus on accountability and learning in health services research, the development of an evidence-based implementation score is particularly timely.



¹ Grimshaw. J. et al(2001) 'Changing Provider Behaviour, An Overview of Systematic Reviews of Interventions' *MEDICAL CARE* Volume 39, Number 8, Supplement 2, pp II-2-II-45