

Do Information Specialists need to search MEDLINE® and Embase for RCTs when CENTRAL alone should be sufficient? : a case study of search methods trialled in an NIHR HTA review of interventions to prevent postnatal depression.

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Background

The Cochrane Controlled Trials Register (CENTRAL) is populated from searches of MEDLINE® and Embase for randomised controlled trials (RCTs) using highly sensitive search filters [1]. Searches for systematic reviews typically search MEDLINE® and Embase with an RCT filter and CENTRAL before extending searches to other databases as appropriate to the topic. This process takes significant time and can result in large numbers of duplicate references being retrieved.

Research Question

This case study sought to examine whether searching CENTRAL for RCTs plus other topic-specific databases would retrieve the majority of included studies without a search for RCTs on Medline and Embase.

Methodology

Search results for an HTA funded systematic review on interventions to prevent postnatal depression [2] were analysed to explore this question. For the review an initial search of CENTRAL was conducted. Instead of then searching MEDLINE® and Embase further RCT searches were only conducted on databases not searched and indexed by CENTRAL. The table below lists the databases and other sources searched for RCTs. All searches for RCTs were undertaken in November to December 2012.

The review team reviewed all references retrieved by the search to decide on included studies, a criteria for inclusion was that the study design was an RCT. Analysis was then conducted on the included studies to determine:

- whether included studies were retrieved from the CENTRAL search
- whether included studies were retrieved from the searches of other bibliographic databases or from other non-database sources.

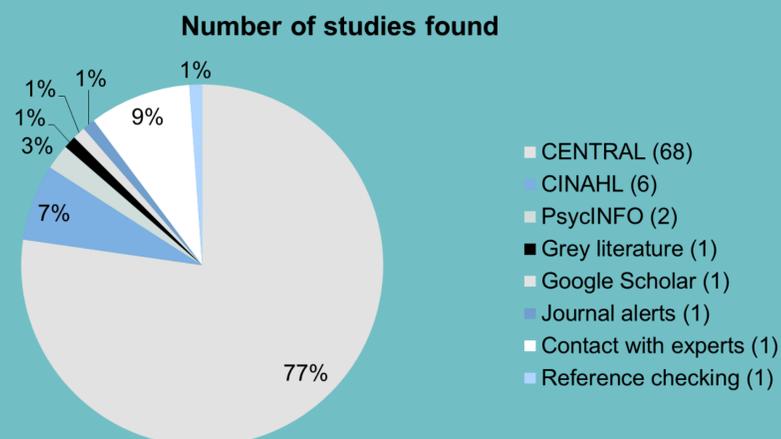
Databases searched	Other sources searched
CENTRAL	Journal alerts (33 journals determined relevant by project team) ongoing until June 2013.
Psycinfo	Current Controlled Trials http://www.controlled-trials.com/
CINAHL	Proquest Dissertation and Theses
Science Citation Index	UKCRN
Social Sciences Citation Index	HSRProj
ASSIA	Index to Theses
AMED	OpenGrey
Social Care Online	Google Scholar
MIDIRS	

Results

The RCT searches for this review retrieved 1193 papers with 755 RCTs retrieved from the CENTRAL search.

The final review included 88 studies consisting of 118 citations. A study was defined as found on CENTRAL if at least one of the study citations was found, the assumption being that searching for related studies of each included study would be undertaken.

Of the 88 included RCTs 68 (77%) were found in the CENTRAL search. The 20 RCTs not retrieved in CENTRAL were found from the following other sources: CINAHL RCT search (6), Psycinfo RCT search (2), contact with experts (8), journal alerts (1), grey literature sources (1), google scholar search (1) and reference checking (1). The pie chart below illustrates from which source the included RCTs were found.



Conclusion

For this review searching CENTRAL, and neither MEDLINE® nor Embase, retrieved the majority (77%) of the included studies and saved time in searching and reference management. Further analysis could beneficially consider whether included RCTs not retrieved from the search of CENTRAL are actually indexed on, and therefore might be retrieved from, MEDLINE® or Embase and additionally whether the search strategy used in the review with an RCT filter would have retrieved these studies on MEDLINE® or Embase.

Further case studies on different topic areas would be required before deciding if this approach should be implemented for all reviews.

1. Lefebvre C, Manheimer E, Glanville J. Chapter 6: Searching for studies. In: Higgins JPT, Green S (editors). Cochrane Handbook for Systematic Reviews of Interventions. Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011. <http://www.cochrane-handbook.org/>

2. C Jane Morrell, Paul Sutcliffe, Matt Stevenson, Andrew Booth, John Stevens, Alison Scope, Anna Cantrell, Michael Barkham, Pauline Slade, Sarah Stewart-Brown, Dick Churchill & Helen Spiby. An evidence synthesis, meta-analysis and decision analytic modelling following a systematic review of quantitative and qualitative studies evaluating the effectiveness, cost-effectiveness, safety and acceptability of interventions to prevent PND. <http://www.nets.nihr.ac.uk/projects/hta/119503> This project is funded by the National Institute for Health Research Health Technology Assessment Programme