

Benefit of additional search techniques to support literature searches in systematic reviews: the “forward citation searching” and “similar articles” functions

Ulrike Lampert, Siw Waffenschmidt
Institute for Quality and Efficiency in Health Care Cologne, Germany
ulrike.lampert@iqwig.de

Background and objective

Besides conducting a conventional Boolean search and checking reference lists, further database search techniques may be required to achieve a (preferably) complete search result, in particular for complex research questions of systematic reviews (SRs) [1,2]. Our objective was to evaluate the benefit of the “similar articles” and “forward citation searching” functions as add-on search techniques for SRs of randomized controlled trials.

Methods

In an SR on systemic psychotherapy, in addition to conducting a Boolean search in several databases and checking reference lists of relevant SRs, we evaluated “forward citation searching” (in Web of Science [WoS] and Google Scholar [GS]) and the “similar articles” function in PubMed, using 40 potentially relevant studies already identified by screening the search results of the conventional search. After screening the hits retrieved by all search techniques, we analysed the benefit of the add-on techniques on the basis of the additional citations and studies found.

Results

The application of the add-on search techniques yielded a total of 2020 hits; 1270 remained after duplicate deletion. Citations from GS largely included only information on authors and titles and did not always include information on sources. Furthermore, no abstracts were included, which turned out to be impracticable for the screening process (full texts would have had to be ordered in almost all cases). It was thus decided to remove these 698 citations and screen the remaining 572; 4 potentially relevant citations were identified (3 were multiple publications and 1 was unique).

Conclusion

Our findings indicate that add-on search techniques to support SRs with complex research questions may identify only a few additional relevant citations. Our poster will present the citations identified and discuss the potential impact of additional search techniques on the evidence base of SRs.

References

1. Papaioannou D, Sutton A, Carroll C, Booth A, Wong R. Literature searching for social science systematic reviews: consideration of a range of search techniques. *Health Info Libr J* 2010;27(2): 114-22.
2. Greenhalgh T, Peacock R. Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ* 2005;331(7524): 1064-65.

Keywords

Information Storage and Retrieval, PubMed, Google Scholar, Web of Sciences, Systematic Review