

Systematic reviews in Indian publications. How many are really systematic reviews?

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ABSTRACT

Background: A systematic review (also termed systematic literature review or structured literature review) is a literature review focused on a research question that tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question.[1] This study is an attempt to find out how many Indian publications are described as systematic reviews in their titles, but are not truly systematic reviews. Such studies may mislead those searching for evidence and we hope to sensitize both authors and researchers to identify true systematic reviews.

Methods: A PubMed search was carried out to locate all records with the term “systematic review” in the title. The search was limited to Indian publications. Every item thus located was checked to see if the topic was broad or narrow, if the study included a meta-analysis or any structured analysis, a description of the search strategy to locate primary research studies, and if the overall methodology indicated rigour. These are what differentiate a systematic review from other reviews. We did not focus on the quality of the review, but included any review as systematic if there was reasonable methodology as described.

Results: We found 147 records with the term ‘systematic review’ in the title. Out of these, 71 were systematic reviews and 76 were not systematic reviews. Some of the 71 systematic reviews were also not true SRs but evidence summaries.

Conclusions: Systematic reviews are important sources of evidence. If a literature search for systematic reviews retrieves too many false hits, it does not help one find evidence. It would be worthwhile developing guidelines for authors, which help them clearly describe their publications as systematic reviews, narrative reviews or reviews of literature.

BACKGROUND

The authors, during interactions with students, faculty and practitioners, observed that many were not aware of the differences between review articles and systematic reviews. Also many “systematic reviews” in Indian journals were observed to have been narrative reviews or reviews of literature or cases. The study was undertaken to see if the number of such studies was significant enough to be a case of concern – where readers of such articles would tend to take them as sources of evidence.

METHODS

A PubMed search was carried out with the strategy: *Systematic review[ti] AND India[pl]* The search resulted in 206 records. From these, articles from journals whose primary publishers were not from India were excluded (eg: Saudi J Gastroenterol).

The final number of titles was 147. This search was carried out in August 2015

The work of selecting true systematic reviews from the titles and abstracts was divided amongst the first four authors. Doubts if any, were resolved by the last author. When there was no abstract, the full text was checked, as almost all were available free. The basis of selection, was taken from a table of comparison between an expert review, a systematic review and a Cochrane review by von Elm et al.[2] While this table gave very clear criteria, our selection was less stringent and based on those with a reasonably focused question and reasonably clear description of methods.

RESULTS

Out of 147 records, only 71 were systematic reviews with a fairly clear question, and a reasonable methodology. The rest were narrative reviews or literature reviews or even reviews of a series of cases!

DISCUSSION

The authors had over a period of years observed that many health professionals and students were not clear about what a systematic review was. This study revealed that more than 50% of articles titled “systematic reviews” were not true systematic reviews. This shows a lacuna in knowledge that needs correction. Spreading awareness about this is important. It is also important to reveal the correct nature of a review in the title, so that a [title] search in PubMed helps retrieve both systematic reviews and regular reviews correctly

CONCLUSION

Well conducted systematic reviews are sources of evidence. But narrative reviews or literature reviews passing off as systematic reviews of evidence, is not desirable. There is a need for editors to take notice of this trend and advise authors to modify their titles, based on the types of reviews written.

Fig 1: Sample Systematic Reviews

Fig 2: Sample narrative / other reviews

- 1. [High-dose versus low-dose antivenom in the treatment of poisonous snake bites: A systematic review.](#)
Das RR, Sankar J, Dev N.
Indian J Crit Care Med. 2015 Jun;19(6):340-9. doi: 10.4103/0972-5229.158275. Review.
PMID: 26195860 **Free PMC Article**
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- 2. [Early goal-directed therapy reduces mortality in adult patients with severe sepsis and septic shock: Systematic review and meta-analysis.](#)
Chelkeba L, Ahmadi A, Abdollahi M, Najafi A, Mojtahedzadeh M.
Indian J Crit Care Med. 2015 Jul;19(7):401-11. doi: 10.4103/0972-5229.160281. Review.
PMID: 26180433 **Free PMC Article**
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- 3. [Pulmonary tuberculosis among tribals in India: A systematic review & meta-analysis.](#)
Thomas BE, Adinarayanan S, Manogaran C, Swaminathan S.
Indian J Med Res. 2015 May;141(5):614-23.
PMID: 26139779 **Free PMC Article**
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- 1. [Flowable Resin Composites: A Systematic Review and Clinical Considerations.](#)
Baroudi K, Rodrigues JC.
J Clin Diagn Res. 2015 Jun;9(6):ZE18-24. doi: 10.7860/JCDR/2015/12294.6129. Epub 2015 Jun 1. Review.
PMID: 26266238 **Free PMC Article**
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- 2. [Sentinel lymph node biopsy in bladder cancer: Systematic review and technology update.](#)
Liss MA, Noguchi J, Lee HJ, Vera DR, Kader AK.
Indian J Urol. 2015 Jul-Sep;31(3):170-5. doi: 10.4103/0970-1591.159601. Review.
PMID: 26166959 **Free PMC Article**
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- 3. [Delusion of pregnancy: a systematic review of 84 cases in the literature.](#)
Bera SC, Sarkar S.
Indian J Psychol Med. 2015 Apr-Jun;37(2):131-7. doi: 10.4103/0253-7176.155609. Review.
PMID: 25969595 **Free PMC Article**

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