

A STUDY OF THE REFERENCES USED IN COCHRANE PROTOCOLS AND REVIEWS

Three Bibles, Three Dictionaries, and Nearly 25,000 Other Things

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Abstract

Objectives: To describe the types of report that are cited by protocols and reviews included in the Cochrane Database of Systematic Reviews.

Methods: The citation for each reference included in the Cochrane protocols and reviews published in the Cochrane Database of Systematic Reviews in issue 1, 1999 of *The Cochrane Library* were categorized by reference type (e.g., journal article, conference proceeding, book chapter, personal communication, Cochrane review).

Results: Of a total of 24,913 citations, 21,694 (87.1%) were references to journal articles. There was a significant difference between the proportion of references to studies that were journal articles (12,348 of 13,472; 91.7%) and the proportion of other references in this category (9,346 of 11,441; 81.7%).

Conclusion: The great majority of studies included in Cochrane reviews at the beginning of 1999 had been published as journal articles.

Keywords: Systematic reviews, Cochrane Collaboration, Randomized controlled trials, Information retrieval

An important distinction between systematic reviews and other types of review articles is that the former should set out clearly the methods that will be followed and should aim to be as thorough as possible in identifying studies for possible inclusion. This requires that appropriate background and methodologic references are cited in the review and that the studies to be included should not be limited to those published in a restricted number of places. If reviews do not seek studies from sources other than, for example, major English language medical journals, they are likely to reach biased and possibly false conclusions. Within the Cochrane Collaboration, a tremendous effort has gone into the identification of randomized trials over the last few years, and this process continues. It has already led to the inclusion of records for more than 250,000 reports of trials in the Cochrane Controlled Trials Register (1). All reviewers are able to draw on this resource. In addition, Cochrane reviewers are supported in their efforts to identify studies by the editorial bases of their Collaborative Review Group. Their reviews (and the protocols that precede them) are published in the Cochrane Database of Systematic Reviews (CDSR), where their references are divided into those for studies considered for the review and other citations, such as those for methodologic articles or background material.

This study describes the types of reports that are cited by these protocols and reviews. It investigates separately the citations for studies considered for the review and those for other information.

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METHODS

A file containing all references to studies and another containing the other references in the total of 1,014 Cochrane protocols (492) and reviews (522) published in issue 1, 1999 of *The Cochrane Library* was provided by Update Software. Each citation was categorized by reference type (e.g., journal article, conference proceeding, book chapter, personal communication, Cochrane review) on the basis of the information in the citation.

RESULTS

There was a total of 24,913 citations, of which 21,694 (87.1%) were references to journal articles. There was a significant difference between the proportion of references to studies that were journal articles (12,348 of 13,472; 91.7%) and the proportion of other references in this category (9,346 of 11,441; 81.7%). Among the references to studies, the next most common reference type was conference proceedings that were not cited as journal articles (abstracts published in journals were categorized as journal articles) with 495 (3.7%) of the 13,472 citations. Among other references, the next most common type after journal articles was books and book chapters (1,094 of 11,441; 9.6%).

Many other reference types were included, and the incidence of some of these is shown in Table 1. Not surprisingly, the *Cochrane Reviewers' Handbook*, which contains guidance on the conduct of Cochrane reviews, was widely cited as a source of methodologic information (102 citations) (2). This was less so for another comprehensive guide on systematic reviews—Report 4 from the NHS Centre for Reviews and Dissemination (6 citations) (3). Among the rarest categories for references to studies was the *Independent*, which was the only newspaper article cited. The review citing this examines the effect of intercessory prayer and also contained the only references to the Bible (three) in the CDSR (4). Among the other references in other protocols and reviews, there were citations to three dictionaries.

CONCLUSIONS

The great majority of references to studies in the CDSR at the beginning of 1999 were journal articles. There was more diversity in the types of reports cited in other references.

Table 1. Incidence (and Proportion) of Reference Types in Cochrane Protocols and Reviews^a

	References to studies	Other references
Journal articles	12,348 (91.7%)	9,346 (81.7%)
Books and book chapters	182 (1.4%)	1,094 (9.6%)
Conference proceedings ^b	495 (3.7%)	65 (0.6%)
Cochrane protocols or reviews	0 (0%)	324 (2.8%)
Unpublished material ^c	237 (1.8%)	57 (0.5%)
Other	210 (1.6%)	555 (4.9%)
Total	13,472 (100%)	11,441 (100%)

^a In issue 1, 1999 of *The Cochrane Library*.

^b These represent papers or abstracts in conference proceedings that were not cited as journal articles. Citations to conference proceedings that were published in journals were categorized as journal articles.

^c This includes citations to material that was specifically said to be unpublished at the time of citation (for example, personal communications, in press documents, and data on file).

POLICY IMPLICATIONS

Further research is needed to investigate factors such as the characteristics of the journals being cited and the use of unpublished studies in Cochrane reviews and in systematic reviews more generally.

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