

IS MEDLINE SEARCH ENOUGH FOR PREPARING GUIDELINES ON REHABILITATION, A CASE STUDY

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Background

Searching literature on rehabilitation is particularly complex because the subject area is heterogenous and interdisciplinary. This arises the question of which other databases than Medline should be searched, so that the search would be comprehensive enough for guideline production. There are no evidence-based recommendations available on which databases should be prioritized or how many databases should be retrieved for a comprehensive enough rehabilitation search. However, there are some studies in which the performances of different bibliographic databases are compared in medical searches that touch closely the rehabilitation subject (1, 2).

Purpose

This study was designed to make a comparative evaluation of the performance of Medline compared to other feasible bibliographic databases for searching publications on rehabilitation. The evaluation of database coverage was based upon the articles that could not be found in Medline: how many additional articles and evidence-based medicine (EBM) articles (systematic reviews / meta-analysis, randomized controlled trials, longitudinal / prospective / follow-up studies) could be found in the other databases that did not exist in the Medline results.

Methods

For testing purposes, rehabilitation of multiple sclerosis was chosen to be the test subject. Searches were performed in Medline, in two further generalized medical databases (Embase and Cochrane Library), in six specialized databases (Cinahl (nursing), Psycinfo (psychiatry, psychology), PeDro (physiotherapy), OT-Seeker (occupational therapy), Rehabdata (rehabilitation), Cirrie (rehabilitation)) and in one general science database (Web of Science) to identify articles for multiple sclerosis rehabilitation. All the searches were limited to the publication year 2012. Search profiles were composed of MeSH headings (if possible) with additional relevant free text terms. Search results were analyzed on the basis of the number of the references and publications.

Results

Cochrane and OT-seeker had most overlap results with Medline. Cochrane had only 15% and OT-Seeker 18% unique material that was not found in Medline. Embase and Cirrie offered the most unique material. 82% of Embase material was unique. However, only 23% of the Embase material was evidence-based medicine (EBM) publications. In this case study the best additional EBM-information source was PeDro. In PeDro 50% of the results were unique and all of them were EBM-publications.

TABLE 1. The results.

Databases	References (n)	Not in Medline n (%)	Not in Medline RCT (n)	Not in Medline Systematic reviews (n)	Not in Medline Prospective studies (n)	Not in Medline EBM references n (%)
Medline	156					
Cochrane	20	3 (15)	3	-	-	3 (100)
Psycinfo	39	18 (46)	-	1	-	1 (6)
Cinahl	82	41 (50)	1	3	1	5 (12)
PeDro	30	15 (50)	7	8	-	15 (100)
OT-seeker	17	3 (18)	3	-	-	3 (100)
Rehabdata	62	27 (44)	2	-	-	2 (7)
Cirrie	9	9 (100)	-	2	-	2 (22)
Embase	305	249 (82)	29	9	19	57 (23)
Web of Science	167	75 (45)	9	4	1	14 (19)

Conclusions

This case study showed that evidence-based rehabilitation should be searched by using several databases. In this special case the most useful additional databases were Embase and PeDro and the least value-added results were found in Psycinfo and Rehabdata. Probably also other databases may be of use, depending on the topic of the guideline. These results are consistent with other international studies: the more resources searched, the higher the yield.

REFERENCES

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