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LETTERS TO THE EDITOR

More detailed guidance on the inclusion/exclusion of retracted articles in systematic reviews is needed

There are currently no clear guidelines on how to proceed when a retracted article is selected in the systematic review process. The Cochrane handbook provides information only on how to identify retracted articles within the scientific literature, instead of clear guidance and criteria for inclusion in the systematic review or not [1]. Other guidelines for conducting systematic reviews do not address this topic [2,3]. Common sense would indicate the exclusion from a systematic review of a study that was retracted because of faked or unreliable data [4].

Although it is reported that most retractions are because of misconduct, the reasons vary [5−7]. There is no point in excluding a retracted article from a systematic review when the reason for retraction is not directly associated with a risk of inaccurate data, such as when an article was retracted because of an authorship dispute [8] or nonpayment of the journal's publication fees [9]. Although these reasons for retraction might be considered sensible, they are unlikely to affect the systematic review results. Conversely, the automatic exclusion of such articles might contribute to some sort of reporting bias that might alter the final estimates [10].

Another important aspect is the clear report of the reasons for retraction. Although retraction notices may report the reason related to data accuracy, they are sometimes unclear or not detailed enough to adequately understand the impact of the retracted article on the meta-analysis results [5,11].

To overcome these problems, some measures are suggested: when a retracted article is selected in the review process and the reason for retraction is not clearly reported or there is inconclusive evidence about a publication's reliability [12], systematic review authors could consider contacting the journal editor. Editors may contribute by clarifying the reason for retraction, which will sometimes decide the article's fate in the systematic review process. The rationale used to include a retracted article (e.g., the detailed reasons for retraction obtained from the journal editor) could be published along with the systematic review. Contacting journal editors when reasons for retraction are unclear should be a standard measure when conducting systematic reviews, at least until the quality of reporting of retraction notes reaches higher standards. Systematic review authors could also consider running the meta-analyses with and without the retracted articles to understand the impact on the effect estimates, as in the case suggested by Cochrane, to evaluate the influence of different levels of risk of bias on the size of the estimates [13].

Research on the potential impact of retracted articles' removal from the pool of primary studies on meta-analytic estimates found that it may cause different effects on the size of the estimates [14]. Although these are preliminary results from a small sample and further research is needed, the findings might indicate the need for a detailed evaluation of the reasons for retraction when deciding the inclusion/exclusion of a retracted article in a meta-analysis. Finally, more efforts are needed by journal editors to publish more detailed retraction notices to facilitate the work of systematic reviewers.

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References

[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. Available at www.handbook.cochrane.org.

[2] Systematic Reviews. CRD's guidance for undertaking reviews in health care. York, UK: Centre for Reviews and Dissemination, University of York; 2009.

[3] Aromataris E, Munn Z, editors. Joanna Briggs Institute Reviewer's Manual. The Joanna Briggs Institute; 2017. Available at. https://reviewersmanual.joannabriggs.org/.

[4] Iwamoto J, Takeda T, Matsumoto H. Efficacy of oral bisphosphonates for preventing hip fracture in disabled patients with neurological diseases: a meta-analysis of randomized controlled trials among the Japanese population. Curr Med Res Opin 2011;27(6):1141−8.

[5] Wager E, Williams P. Why and how do journals retract articles? An analysis of Medline retractions 1988-2008. J Med Ethics 2011;37:567−70.

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[6] Faggion CM Jr, Ware RS, Bakas N, Wasiak J. An analysis of retractions of dental publications. J Dent 2018;79:19–23.
[7] Chambers LM, Michener CM, Falcone T. Plagiarism and data falsification are the most common reasons for retracted publications in obstetrics and gynaecology. BJOG 2019;126:1134–40.
[8] Huh S, Kim SY, Cho HM. Characteristics of retractions from Korean medical journals in the KoreaMed database: a bibliometric analysis. PLoS One 2016;11:e0163588.
[9] Retraction Watch. Available at http://retractionwatch.com/2014/02/13/a-first-dental-journal-retracts-three-papers-because-authors-didnt-pay-publication-charges/. Accessed June 18, 2019.
[10] Sterne JAC, Egger M, Moher D. Chapter 10: addressing reporting biases. In: Higgins JPT, Green S, editors. Cochrane handbook for systematic reviews of intervention. Version 5.1.0 (updated March 2011). The Cochrane Collaboration; 2011. Available at www.handbook.cochrane.org.
[11] Moylan EC, Kowalczuk MK. Why articles are retracted: a retrospective cross-sectional study of retraction notices at BioMed Central. BMJ Open 2016;6(11):e012047.
[12] Wager E, Barbour V, Yentis S, Kleinert S, on behalf of COPE Council. Retractions: guidance from the committee on publication ethics (COPE). Available at https://publicationethics.org/files/retraction%20guidelines_0.pdf. Accessed June 22, 2019.
[13] Higgins JPT, Altman DG, Sterne JAC. Chapter 8: assessing risk of bias in included 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. Available at www.handbook.cochrane.org.
[14] International Congress on Peer Review and Scientific Publication. Available at https://peerreviewcongress.org/prc17-0327. Accessed June 18, 2019.

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Database choice can be informed by both large-scale and in-depth analyses

Database choice is closely tied to coverage, which can be investigated using a number of different approaches: a specific topic or medical specialty as an example, coverage of a selection of journals (width and depth), coverage of different document types, and finally, a gold standard can form the basis for an examination of database coverage. The latter approach is used in a large scale of the included studies in all Cochrane reviews published from 2012 to 2016 [1]. By including all Cochrane reviews, we focus on intervention studies. We examine if the 86,533 publications from 55,181 studies can be identified in PubMed.

The results of our paper show that PubMed has a coverage of 71% of all the included publications and 83% of all included studies in Cochrane reviews from 2012 to 2016. However, there are huge differences among the groups as well as within the groups over time. We conclude that coverage can be very difficult to predict for some review groups, and thus, databases within these areas should be chosen with care. We also recommend that future studies of database coverage should take the considerable variation across review groups and time into account as well as the effect of investigating on publication level instead of study level.

Metzendorf and Featherstone suggest further analyses according to the type of intervention, review type, and study design [2]. For our study the information on included studies were extracted from the Cochrane group overview page. Consequently, in the study we are not able to perform in-depth analyses according to intervention, review type, or study design. Our study can confirm the existence of considerable variances in coverage, but not explain the factors behind these differences.

We welcome more in-depth analyses that can help inform the choice of database. Focusing on a smaller population (e.g., qualitative reviews), an in-depth analysis is feasible and can offer further insights [3]. We would thus also encourage the conduction of further in-depth analyses. The evidence base that can inform the database choices for systematic reviews could indeed be strengthened, and both large-scale as well as in-depth analyses are needed to provide this foundation. In addition to the three relevant categories suggested by Metzendorf and Featherstone, future studies could consider including retrievability (as opposed to being indexed), versions of MEDLINE/PubMed as well as specific platforms, to inform the choice of database.

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References

[1] Frandsen TF, Eriksen MB, Hammer DMG, Christensen JB. PubMed coverage varies across specialties and over time: a largescale study of included studies in Cochrane reviews. J Clin Epidemiol 2019;112:59–66.

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