Inconsistencies are common between non-Cochrane systematic reviews and their protocols registered in PROSPERO but were seldom explained

The Problem

Determined what changed were made between non-Cochrane reviews and their protocols in PROSPERO and how likely these changes impacted the quality of systematic review.

Study Design and Setting

In this retrospective comparative study we electronically searched for protocols and their corresponding reviews in the PROSPERO platform that were “completed and published” from January to December, 2018. Two reviewers independently identified and classified changes between the protocols and reviews then evaluated the impact of these change on the quality of reviews.

Key Results

• This study has demonstrated that 100% of published non-Cochrane reviews (n=39) with a protocol in the PROSPERO underwent alterations during the research process, and these alterations involved all 13 compared method-related section
• All changes to only a single review were considered to improve the reporting/methodology quality, and the remaining 97% of systematic reviews (n=38) contain changes that were considered to reduce the methodology/reporting quality or have an unclear impact on systematic reviews.
• Only 8% of the reviews analyzed included reviews (n=3) that provided reasonable explanations for individual changes in the published full text.

Conclusion & Suggestion

Differences between the non-Cochrane reviews and their protocols recorded in PROSPERO are widespread, and there have been many changes having an unclear impact on the quality of reviews. Guiding the author to report and explain the differences between protocol and reviews or even requiring authors to so at the level of journal are two fundamental solutions to further improve the transparency of the non-Cochrane reviews.

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