PRISMA - COSMIN OUTCOME Measurement Instruments

Full report

Item 25: Risk of bias in studies

Present assessments of risk of bias for each included study.

Title	1	Title	✓
Abstract	2	See tip sheets for Abstracts	✓
Summary	3	Plain language summary	✓
Open Science	4	Registration and protocol *a. Registration information* *b. Accession of protocol* *c. Protocol amendments*	✓
	5	Support	
	6	Competing interests	
	7	Availability of data and other materials	
Introduction	8	Rationale	✓
	9	Objectives	
Methods	10	Followed guidelines	
	11	Eligibility criteria	
	12	Information sources	
	13	Search strategy	
	14	Selection process	
	15	Data collection process	
	16	Data items	
	17	Study risk of bias assessment	✓
	18	Measurement properties	
	19	Synthesis methods *a. Eligibility processes* *b. Methods for synthesis* *c. Causes of inconsistency* *d. Sensitivity analyses*	
	20	Certainty assessment	
	21	Formulating recommendations	
Results	22	Study selection *a. Results of search and selection* *b. Excluded reports with reasons*	
	23	OMI characteristics *a. Characteristics of OMIs* *b. Interpretability aspects of OMIs* *c. Feasibility aspects of OMIs*	
	24	Study characteristics	
	25	**Risk of bias in studies**	◀
	26	Results of individual studies	
	27	Results of syntheses *a. Results of syntheses conducted* *b. Results of causes of inconsistency* *c. Results of sensitivity analyses*	
	28	Certainty of evidence	
	29	Recommendations	
Discussion	30	Discussion *a. Interpretation of results* *b. Limitations of evidence* *c. Limitations of review processes* *d. Implications*	

Tips for reporting this item:

- Present tables or figures indicating the risk of bias of each study on a measurement property (considering a format that will facilitate understanding of risk of bias in studies in relation to the results).

Examples:

In a review examining the measurement properties of diabetes-specific PROMs measuring physical functioning, the authors presented a table combining the risk of bias ratings with the ratings of the measurement property (item #26). In the appendix, they provided a more extensive table, combining the risk of bias ratings with the results and ratings of measurement properties (item #26). The appendix also shows the synthesized results, consisting of the summarized or pooled result with the overall rating (item #27a), and the certainty of the evidence (item #28). The authors also provide an explanation for common suboptimal risk of bias ratings in the main text, when discussing each measurement property.

"For the other PROMs [patient-reported outcome measures], the development was rated as inadequate, because the construct of the included physical functioning subscale was not clearly described or the PROM was not pilot tested. […] If studies had inadequate quality for structural validity or cross-cultural validity\measurement invariance, this was often due to small sample sizes. […] Reliability was evaluated for six PROMs or subscales. All studies with inadequate quality had a time interval that was considered to be too long (i.e., more than 4 weeks). […] Three studies were of inadequate quality, because they did not apply an appropriate statistical method to compare subgroups."

The E&E contains an abridged version of this table and appendix.

Elsman EBM et al. Systematic review on the measurement properties of diabetes-specific patient-reported outcome measures (PROMs) for measuring physical functioning in people with type 2 diabetes. *BMJ Open Diabetes Res. Care*, 2022;10(3):e002729. https://doi.org/10.1136/bmjdrc-2021-002729.

See the E&E for more examples.

From: Elsman EBM, Mokkink LB, Terwee CB, Beaton D, Gagnier JJ, Tricco AC, et al. Guideline for reporting systematic reviews of outcome measurement instruments (OMIs): PRISMA-COSMIN for OMIs 2024. J Clin Epidemiol, 2024, https://doi.org/10.1016/j.jclinepi.2024.111422.

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