PRISMA - COSMIN OUTCOME Measurement Instruments

Item 19b: Synthesis methods – Methods for synthesis

Describe any methods used to synthesize results.

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:

- Describe and justify the summary approach or synthesis method used.
- If different approaches are used for different measurement properties, describe which approach was used for each measurement property.
- If statistical synthesis methods were used, reference the software, packages, and version numbers used to implement synthesis methods (such as metafor (version 2.1-0) in R).
- If meta-analysis was done, specify: 1) the meta-analysis model (fixed-effect, fixed-effects, or random-effects) with a rationale, 2) the method used (such as Mantel-Haenszel, inverse-variance), and 3) any methods used to identify or quantify statistical heterogeneity (such as visual inspection of results, a formal statistical test for heterogeneity, heterogeneity variance (τ2), inconsistency (such as I2), and prediction intervals).
- If a planned synthesis was not considered possible or appropriate, report this and the reason for that decision.

Examples:

"[…] a qualitative synthesis of the evidence per measurement property, per PROM [patient-reported outcome measure] was constructed to come to an overall conclusion of PROM quality. If consistent (i.e., ≥ 75% of the results are either rated 'sufficient' or 'insufficient'), the results of the individual studies on measurement properties were qualitatively summarized and again rated against the criteria for good measurement properties. If inconsistent, an explanation for this inconsistency was sought. When the inconsistency remained unexplained, the overall result was rated as 'inconsistent' (±). An 'indeterminate' (?) rating was given when the individual results were all rated as 'indeterminate'."

Kalle J et al. Quality of patient-and proxy-reported outcomes for children with impairment of the upper extremity: a systematic review using the COSMIN methodology. *Journal of Patient-Reported Outcomes,* 2022;6(1):1-17. https://doi.org/10.1186/s41687-022-00469-4.

See the E&E for more examples.

More resources are available at www.prisma-cosmin.ca.