We examined a convenience sample of five related knowledge synthesis methods used to synthesize evidence on interventions. We found differences in methodological conduct and quality across the types of knowledge synthesis methods, which are likely attributable to the purpose of the knowledge synthesis method. Across these types of knowledge syntheses, methodological conduct and quality of reporting could be improved.

Although all of the knowledge synthesis methods that were examined can be used to synthesize evidence, the challenge lies in determining which method is the most appropriate for a particular research question. Researchers should be aware of the methodological differences in order to select the best knowledge synthesis method to address knowledge user needs.

This is a retrospective analysis of a convenience sample of 5 published databases of knowledge syntheses: systematic reviews (n=300), overview of reviews (n=74), scoping reviews (n=494), network meta-analyses (NMA; n=456), rapid reviews (n=84).

Reporting characteristics and methodological conduct details were abstracted by one reviewer and verified by a second reviewer. Methodological quality was appraised using the A MeaSurement Tool to Assess systematic Reviews (AMSTAR) tool. AMSTAR Items not relevant to a specific knowledge synthesis type were not scored during the assessment process and the total score was adjusted for knowledge synthesis types based on the number of relevant items (i.e. maximum obtainable score for a given knowledge synthesis type).

Data analysis involved quantitative (e.g. frequencies) methods.

The use of a protocol ranged from 4% for rapid reviews to 32% for systematic reviews.

The use of two reviewers for citation and full-text screening ranged from 20% for scoping reviews to 60% for NMA.

Data abstraction was performed in duplicate for 11% of rapid reviews and 54% for NMA.

NMAs consistently scored the highest on the AMSTAR tool, likely because the purpose is to estimate treatment effects statistically. Scoping reviews scored the lowest (even after adjusting the score for not relevant items) likely because the purpose is to characterize the literature.

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