

Research Brief

A scoping review reveals poor operationalization of methodological steps for integrating qualitative and quantitative data

Summary

The objectives of this scoping review were to examine the operational steps for integrating qualitative and quantitative evidence in healthcare and to compare the expertise required, the similarities/differences (relative to SRs) and the strengths/limitations of these synthesis methods. We identified 121 articles reporting on 7 knowledge synthesis methods. Guidance was provided for all steps of the review process for some methods, including integrative review and realist review, while meta-summary had guidance on the fewest number of steps. Other methods were missing guidance on the entire synthesis process.

Implications

This is the first study to compare the features of emerging knowledge synthesis methods that can be used to integrate qualitative and quantitative evidence in the realm of health. The methods are less formally developed when compared to traditional systematic reviews and it follows that the steps are not reported in a fully reproducible manner. Further work is necessary to provide clarity on these emerging methods in order to make them more usable. We propose convening an international group of leaders in the field to clarify these methods further, thereby increasing the reporting and accessibility of these methods to broader groups.

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What is the current situation?

- Although systematic reviews (SRs) can be used to inform decision-making in healthcare, there are inherent challenges with this method, including a lack of rich contextual detail(s).
- To address these challenges, novel synthesis methods have emerged, which can be used to integrate qualitative and quantitative data.

Objective

- To describe how emerging knowledge synthesis methods integrating qualitative and quantitative evidence are applied (i.e. the expertise required, the similarities and differences between these methods and SRs, their strengths and limitations and their operational steps).

How was the review conducted?

- Ten electronic databases were searched from inception onwards for any type of publication that described emerging knowledge synthesis methods in healthcare (as per the WHO definition), or philosophy that could be used to integrate qualitative and quantitative data.
- Screening of the literature search results and data abstraction of included studies were completed independently by two reviewers.
- Results were summarized descriptively and common themes across the studies were analyzed using thematic analysis.

What did the study find?

- The review included 121 articles with information about 7 knowledge synthesis methods that can be used to integrate qualitative and quantitative data (integrative review, mixed studies review, realist review, meta-summary, meta-narrative review, narrative synthesis, and critical interpretive synthesis).
- In terms of expertise required, the common themes were: team characteristics and individuals' skills/knowledge/expertise.
- Guidance on all steps of the review process was not provided for meta-summary, meta-narrative review, narrative synthesis, and critical interpretive synthesis.
- The main similarities (relative to the Cochrane Collaboration's definition of a SR) related to the entire synthesis process, while common differences were related to the research question and eligibility criteria. The most common strength (as reported by the authors) was a comprehensive synthesis providing rich contextual data, while the most common weakness was a highly subjective method that was not reproducible.


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