

Conducting a Scoping Review

What is a scoping review?

Before conducting a systematic review or meta-analysis, researchers start with a scoping review. This process is used at the planning stage to:

1. Estimate the number of studies eligible for systematic review.
2. Assess feasibility of a systematic review.
3. Refine the research question: broadening to ensure adequate literature, narrowing to ensure feasibility.

Identify a broad research question and search terms

Researchers first define a broad question of interest. Starting with simple key terms from this broad question, researchers conduct a naïve search for relevant literature and mine resulting abstracts and titles for additional keywords.

Search and retrieve studies from one or more databases

Using the full set of search terms, researchers conduct a comprehensive search using databases that likely warehouse the targeted literature. Doing so gives researchers an estimate of the number of potentially relevant studies.

Select studies randomly from the retrieved set to reduce screening burden

From the retrieved results, a random subset of studies is selected for further eligibility screening. The total number of studies selected is based on the resources available (e.g., 100 studies or 10% of the studies).

Screen based on proposed eligibility criteria

Starting with simple inclusion criteria, researchers first pilot screen a common set of retrieved results and discuss any discrepancies in screening. Upon finalizing the inclusion criteria, each researcher screens a portion of the total retrieved results, marking those that are eligible for inclusion.

Extrapolate number of expected studies based on screening results

Researchers can then use the percentage of eligible studies to extrapolate and estimate the total number of eligible studies, allowing for judging the feasibility of conducting the review.

Refine research question based on extrapolation

Based on the feasibility investigation, researchers may refine their inclusion criteria and research question. This process can cycle multiple rounds before researchers have a feasible and refined research question ready for a systematic review or meta-analysis.

After this process, the review team will have a feasible, refined research question ready to propose for a systematic review and meta-analysis.