



Section B

What Is in a Qualitative Synthesis?

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Definition of Qualitative Synthesis

- An assessment of the body of evidence that goes beyond factual descriptions or tables that, for example, simply detail how many studies were assessed, the reasons for excluding studies, the range of study sizes and treatments compared, or quality of each study as measured by a risk of bias tool

More about Qualitative Synthesis

- The purpose of the qualitative synthesis is to develop and convey a deeper understanding of how an intervention might be working (or not), or whether a true association exists, for whom, and under what circumstances
 - ▶ Involves numerous judgments:
 - The relevance, legitimacy, and relative uncertainty of some aspects of the evidence
 - The implications of missing evidence (a commonplace occurrence)
 - The soundness of technical methods
 - The appropriateness of conducting a meta-analysis
 - ▶ Team should describe patterns in a body of evidence, yielding a deeper understanding of the underlying science and helping readers to interpret the findings of the quantitative synthesis (if conducted)
 - ▶ Synthesis must be appropriately balanced and driven by the underlying data

Purposes of the Qualitative Synthesis

- Orient the reader to the clinical background
- Describe what happened to study participants over the course of the studies
- Critique the strengths and weaknesses of the body of evidence
- Identify differences in the design and execution of the individual studies that may explain why their results differ
- Describe how the design and execution of the individual studies affect their relevance to real-world clinical settings

Purposes of the Qualitative Synthesis

- Integrate the general summary of the evidence and the subgroup analyses based on setting and patient populations
- Call attention to patient populations that have been inadequately studied or for whom results differ
- Describe how the SR findings contrast with conventional wisdom
- Interpret and assess the robustness of the meta-analysis results

Items to Describe in Qualitative Synthesis

- Clinical and methodological characteristics of included studies, including their size, inclusion/exclusion of important subgroups, timeliness, etc.
- Strengths and limitations of included studies
- How flaws in the design or execution of the studies could bias the results (make your reasoning clear)
- Relationships between study characteristics and their reported findings
- Relevance of individual studies to populations, comparisons, co-interventions, settings, and outcomes or measures of interest

Qualitative Synthesis

- **Describe:** the nature of the evidence in the literature
- **Interpret:** the possible effect of the many differences among studies
- **Evaluate:** the strengths and weaknesses in the evidence base
- **Conclude:** combinability?

IOM Standards for Qualitative Synthesis

- **Standard 4.2—Conduct a qualitative synthesis**
 - ▶ **4.2.1** Describe the clinical and methodological characteristics of the included studies, including their size, inclusion or exclusion of important subgroups, timeliness, and other relevant factors
 - ▶ **4.2.2** Describe the strengths and limitations of individual studies and patterns across studies
 - ▶ **4.2.3** Describe, in plain terms, how flaws in the design or execution of the study (or groups of studies) could bias the results, explaining the reasoning behind these judgments
 - ▶ **4.2.4** Describe the relationships between the characteristics of the individual studies and their reported findings and patterns across studies
 - ▶ **4.2.5** Discuss the relevance of individual studies to the populations, comparisons, cointerventions, settings, and outcomes or measures of interest

Qualitative Synthesis: Take-Home Messages

- Systematic reviews are integrative syntheses
 - ▶ Systematically assemble, critically appraise, and synthesize the results of primary investigations addressing a specific topic or problem
 - ▶ Two components: qualitative and quantitative
 - A quantitative synthesis is not always a sensible step and is only as good as the qualitative synthesis that precedes it