

EPPI-Centre Evidence Tools, Products, and Projects

A series of webisodes from the Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre

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Justifiable evidence claims

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Systematic reviews

- Research reviews are a ‘meta’ level of research that use the findings of existing studies to address research questions
- Reviews vary considerably in:
 - the questions they address
 - the methods they use
 - the nature of the evidence claims (and the certainty and scope of application of such claims)

Users of research engage with and interpret evidence claims of:

- Primary research
- Reviews of research
- Recommendations based on research + further evidence: other types of research + policy or practice or users knowledge + contextual factors

Research (review) questions vary

- Type of question
- Perspectives, values and priorities
- The nature and extent of the research problem that the a review attempts to address
- The use of theory and data in addressing that question

Evidence claims of reviews - Appraising claims on the basis of:

1. How the **review** was conducted
2. The **individual studies** used by the review
3. The nature of the **total evidence** identified

Appraisal includes not only **trustworthiness and relevance of method**. It also includes the relevance of the **focus** of a review and of studies included in a review.

Dimension 1: Review method

Sub-dimensions:

- a) **Methods standards achieved:** how well was review undertaken methodologically?
- b) **Suitability of the review method:** Is this an appropriate method for answering this review question?
- c) **Relevance to review focus:** Is the way that the review is conducted appropriate for the specific focus of the review question?

Example of components of appraisal instruments to assess Dimension 1:

AMSTAR: (a) Methodological quality

ROBIS: (a) Concerns with the review process; Risk of bias; (c) Relevance

Dimension 2: Included studies

Sub-dimensions:

- a) **Methods standards achieved:** how well were the ‘included studies’ undertaken methodologically?
- b) **Suitability of the research methods of the ‘included studies’:** Were these appropriate methods for answering this **review** question?
- c) **Relevance to review focus:** Is the way that the ‘included studies’ were conducted appropriate for the specific focus of the **review** question?

Example of components of appraisal instruments to assess Dimension 2:

GRADE: (a) Study design; (a&b) Study limitations; (c) Indirectness

CERQUAL: (a&b) Methodological limitations; (c) Relevance

Dimension 3: Evidence produced by the review

Sub-dimensions:

- a) **Nature of the included studies:** qualities of the evidence when considered together (such as heterogeneity, statistical independence).
- b) **Extent of evidence from the included studies:** further to issues of quality maybe issues of the extent of evidence available to address the review question.

Example of components of appraisal instruments to assess Dimension 3:

GRADE: (a&b) Inconsistency; Imprecision; Publication bias; Magnitude of treatment effect; Impact of confounders; Dose /response

CERQUAL: (a) Coherence; (a&b) (b) Adequacy of data

Example of components of appraisal instruments to assess Dimensions 2 & 3:

Both GRADE and CERQUAL: Quality of evidence for each specific finding

So how to assess whether an evidence claim fits your (decision support) needs?

- i. Is the evidence claim relevant to your decision (if so, in what way? What does it not cover?)
- ii. Is it of sufficient methodological quality (1a, 1b, 2a,2b,3a)?
- iii. Is it of sufficient relevance in terms of focus (1c, 2c)? Including alignment between the review question and method (for example, sample and focus of measures)?
- iv. Is the evidence sufficient (3b + of actual or potentially available evidence)

Sufficiency of evidence

Evidence may be strong in terms of one study or even one review yet is this sufficient in terms of what could or should be studied?

How much of such evidence is sufficient for different decisions?

Justifiable evidence claims to inform decisions

Evidence claim

Justification for claim

- Review Method
- Included Studies
- Evidence produced

Consideration of evidence and decisions

- **Interpretation & integration with other information**

Application of decisions

Outcomes of decisions

Thank you



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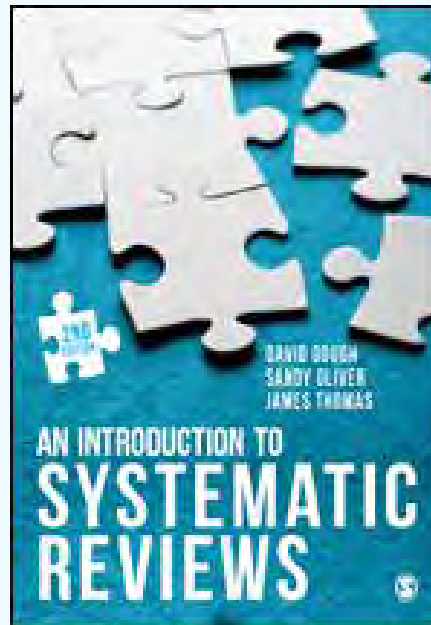
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Disclaimer

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