

EPPI-Centre Evidence Tools, Products, and Projects

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

Hosted by AIR's Center on Knowledge Translation for Disability and Rehabilitation Research (KTDRR)





Dimensions of difference in systematic reviews

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What are systematic reviews?

- Research is systematic critical enquiry (Stenhouse, 1981)
- Research reviews are a 'meta' level of research
- Instead of addressing research questions by studying the world directly, reviews use the findings of existing studies to address research questions
- Reviews are a form of research so should be systematic (and explicit about methods)

Dimensions of difference in reviews

- Primary research varies extensively in range of questions asked and methods used
- Reviews likely to include primary studies that ask the same question as the review
- Reviews are likely to have similar methodological approaches and concerns as the primary studies they include

Aggregative approaches

Aggregative synthesis predominately adds up (aggregate) findings of primary studies to answer a review question...

... to indicate the direction or size of effect



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Configurative approaches

- Configurative synthesis predominately arranges (configures) the findings of primary studies to answer the review question....
- ... to offer a meaningful picture of what research
- is telling us

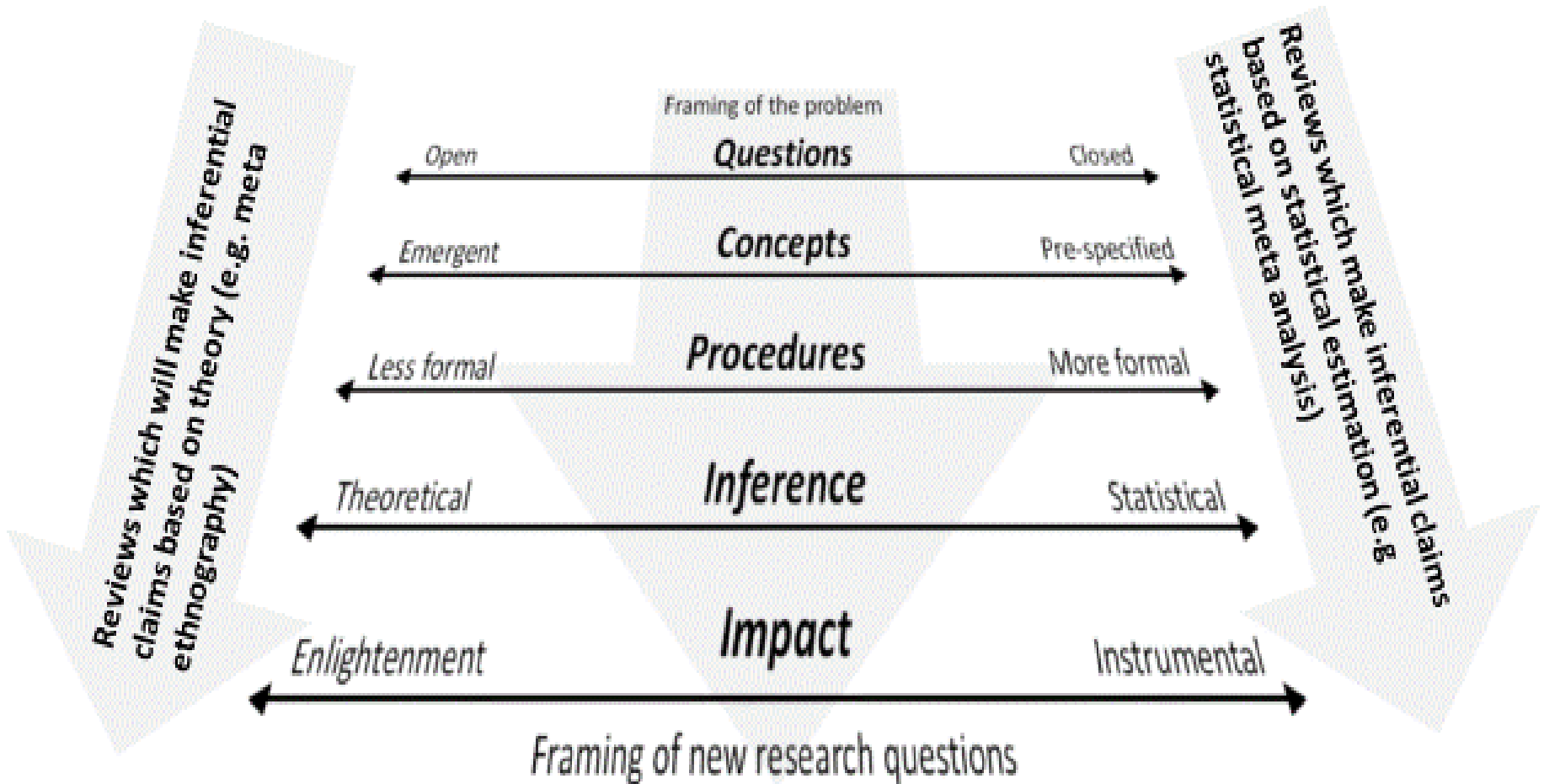


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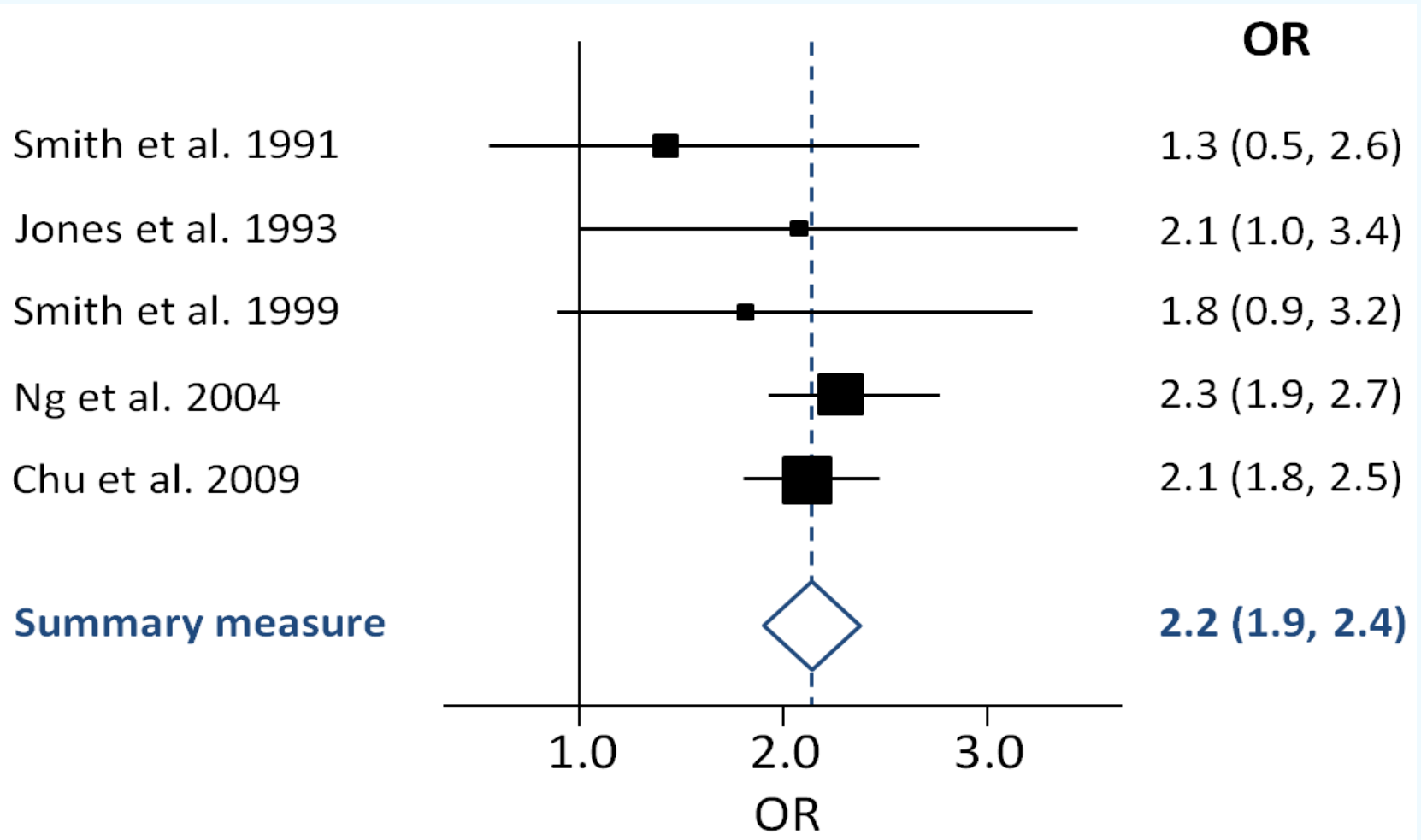
Fitting research questions with methods

- Impact / effectiveness / what works = methods that control for extraneous variables such as randomized controlled trials
- Causal processes / mechanisms: Logic models + mixed methods of empirical data on necessary conditions + qualitative data on process
- Prevalence: counting, e.g. surveys, routine / administrative / big data

Dimensions of difference in reviews



Example 1: Statistical meta analysis



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Example 2: mixed methods multi stage review integrating qualitative research and trials

Review question

e.g. What is known about the barriers to, and facilitators of, fruit and veg intake amongst children aged 4 to 10 years?

MAPPING

(193 studies in 272 reports)

'Views' studies (N=8)

1. Application of inclusion criteria
2. Quality assessment
3. Data extraction
4. **Thematic synthesis**

Trials (N=33)

1. Application of inclusion criteria
2. Quality assessment
3. Data extraction
4. **Statistical meta-analysis**

Trials and 'views'
Mixed methods synthesis

Example 3: multi stage appraisal of a proposed policy

Smoking in cars legislative logic model*

1. How significant is the risk? (Toxicology)
2. Is there public support? (Survey research)
3. Will it survive lobbying? (Political science)
4. Is it enforceable? (Policing evaluation)

Unpacking the necessary components (configure), then test the evidence from each of these (**iterative**/aggregative)

**Model from Ray Pawson 2013*

Dimensions of difference in reviews continued

- Questions and conceptual framework
- Studies considered
- Single or multi-component reviews
- Breadth, depth and time available
- Methods of review, and aggregative and/ or configuring synthesis
- Use of theory and data
- Breadth and depth of a review question and 'work done' by a review (see webisode on rapid reviews)
- Reviews of reviews (see webisode on umbrella reviews)

Review 'brands'

- There are many brands of reviews that provide a quick label to understand the type of review
- There is often major variation in the reviews within one type of review, so being aware of and specifying the 'dimensions of difference' of a review is important

Thank you

Websites

EPPI-Centre Website <http://eppi.ioe.ac.uk>

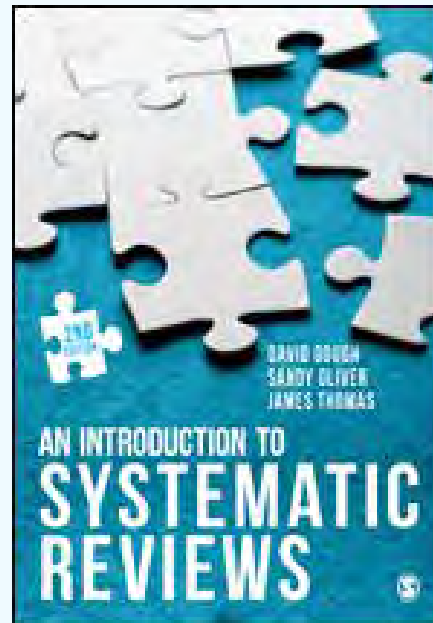
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Disclaimer

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