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)
Rapid reviews

February 2018
Mark Newman (EPPI-Centre, UCL)
Systematic reviews

• Research reviews are a ‘meta’ level of research that aim to answer a research question by synthesizing the findings of existing research studies.

• Systematic Reviews are a form of research review that is systematic and explicit about methods.

• Systematic Reviews can address different research questions and use different methods.

(See Webisode on dimensions of difference in reviews)
Variation in ‘work done’* by a review

• Whatever the type of research question the focus and complexity of the question may vary.
• The complexity of a question has a number of dimensions including:
  – The population or participants
  – The contexts
  – The complexity of the phenomena either conceptually or practically
  – The type of data & answers required

Systematic review as a project

- The possibilities of a systematic review are determined by the three factors
  - The scope of the work
  - The quality required
  - The time and resources available

- Typically the broader and/or more complex the review research question and/or rigorous the review methods the longer it will take to complete a systematic review.
Undertaking reviews rapidly

Many reasons why a review might need to be taken more rapidly. Most approaches either:

• 1. Increase speed by increasing resources whilst maintaining ‘work done’

• 2. Reduce the complexity of review question (and thus the ‘work done’) by the review

AND/OR

• 3. Reducing rigour of the review process and reporting

Approaches 2 and 3 common as require fewer resources than approach 1
The common stages of a systematic review

1. Define review stakeholders and team
2. Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)
3. Search for and identify relevant studies
4. Describe studies
5. Appraise included studies
6. Synthesise and appraise findings
7. Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholders and team

Limit stakeholder engagement in range and methods

Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)

Search for and identify relevant studies

Describe studies

Appraise included studies

Synthesise and appraise findings

Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholder and team

Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)

Focus on specific population, specific conceptual/practical definitions of phenomena reflected in tightly specified selection criteria

Search for and identify relevant studies

Describe studies

Appraise included studies

Synthesise and appraise findings

Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholder and team

Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)

Search for and identify relevant studies

Use fewer search sources; simpler search strings

Reduced QA e.g. single person screening; emphasis on ‘clear fit’ when selecting for inclusion

Describe studies

Appraise included studies

Synthesise and appraise findings

Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholder and team

Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)

Search for and identify relevant studies

Describe studies

Simplify data extraction to reduce information gained from individual studies; reduce QA e.g. single person data extraction

Appraise included studies

Synthesise and appraise findings

Communicate and engage
Define review stakeholder and team

Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)

Search for and identify relevant studies

Describe studies

Appraise included studies

Use more simple study quality assessment or none at all. If quality assessment used for selection make it very simple, reduce QA e.g. single person quality assessment.

Synthesise and appraise findings

Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholder and team
Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)
Search for and identify relevant studies
Describe studies
Appraise included studies

Synthesise and appraise findings
Use less complex methods of synthesis, less exploration and/or sensitivity analysis in the synthesis
Communicate and engage
The common stages of a systematic review - acceleration strategies

Define review stakeholders and team
Formulate review question, conceptual framework and inclusion criteria (develop ‘protocol’)
Search for and identify relevant studies
Describe studies
Appraise included studies
Synthesise and appraise findings

Communicate and engage

Use shorter and less complex reports following pre-structured templates
What is important to consider when deciding which acceleration strategies to use?

- Important to remain systematic and transparent whatever choice is made.
- Each strategy has potential to 'speed-up' review process alone or in combination with others.
- Each strategy has potential to introduce 'more' error or 'bias' into a systematic review. More strategies = more risk:
  - e.g. fewer search sources increases risk of 'not finding' piece of relevant research
  - e.g. less complex quality assessment increases risk of not identifying where methods of a study are influencing results in a particular way
- Choice should be informed by all stakeholders’ views about which ‘risks’ are most important to them.
General conclusions

• Systematic reviews maybe ‘accelerated’ in a number of ways.
• Evidence claims based on the review findings should be consistent with the limitations of the systematic review question and methods.
• Acceleration strategies are probably less ‘risky’ when the review research question can be very clear about the population, phenomena and data/answers/outcomes of interest.
• Complexity in any of these dimensions will increase the risk that acceleration strategies may reduce the utility of the review to provide a clear rigorous answer to review research question.
Follow up references


• Caird J, Sutcliffe K, Kwan I, Dickson K, Thomas J (2015) Mediating policy-relevant evidence at speed: are systematic reviews of systematic reviews a useful approach? Evidence & Policy, 11 (1) 81-97
Thank you

Websites
EPPI-Centre Website [http://eppi.ioe.ac.uk](http://eppi.ioe.ac.uk)

Twitter
@EPPICentre
@ProfDavidGough

Email
mark.newman@ucl.ac.uk
david.gough@ucl.ac.uk

Cover reprinted with permission
Disclaimer

The contents of this presentation were developed by the EPPI-Centre for grant number 90DP0027 from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this presentation do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.