Developing a Systematic Review Question and Outcomes

Systematic Review Training

Center for Knowledge Management

VANDERBILT UNIVERSITY

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Objectives:

- ✓ Discuss how to develop a systematic review question
- ✓ Discuss how to define outcomes

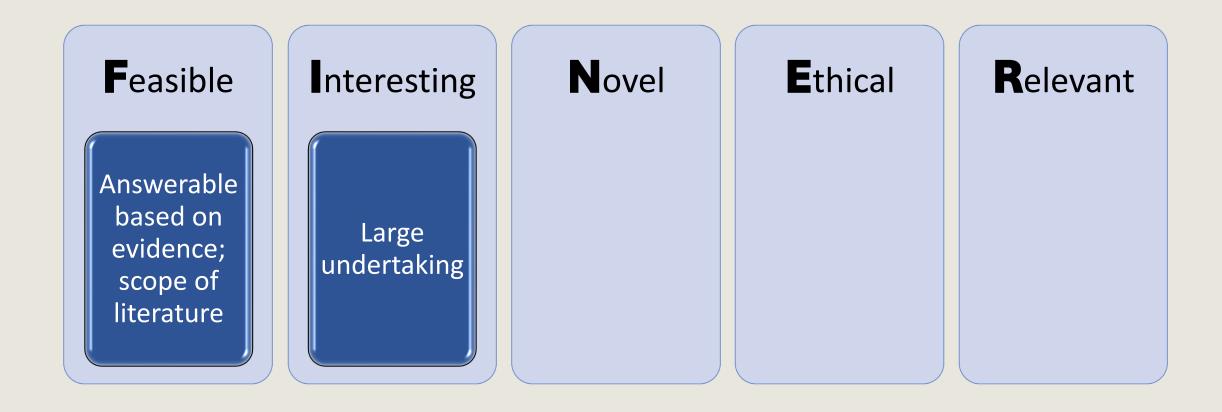


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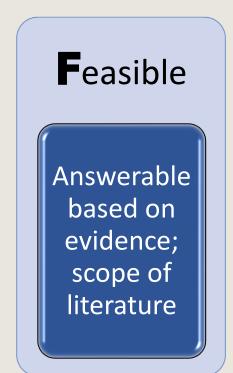


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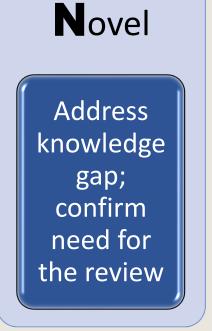
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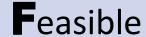
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Ethical **R**elevant



Answerable based on evidence; scope of literature

Interesting

Large undertaking

Novel

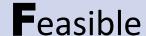
Address knowledge gap; confirm need for the review

Ethical

Consider political implications and whether results could widen health inequalities

Relevant

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Relevant

Consult
stakeholders
when defining
questions;
consider how
findings will
inform
decisions

Framing a Review Question

"Item 7. Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)"

- PRISMA-P (2015)

Defining the scope

- Broad vs. narrow
- Consider advantages and disadvantages







Protocol amendment



Protocol amendment

Ensure revised
question still meets
FINER criteria (feasible,
interesting, novel,
ethical, relevant)



Protocol amendment

Document reasons for changes in methods

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Document reasons for changes in methods

Re-assess search
strategy, data
collection methods,
and articles that have
already been screened

Defining outcomes

 Specific endpoints of interest for the systematic review

 Should be defined prior to conducting the review and stated in the protocol



Defining Outcomes

Item 13. "List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale"

- PRISMA-P (2015)

Importance of specifying outcomes in advance

- Helps reduce bias
 - Select outcomes independently of knowing their statistical significance



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 - Select outcomes independently of knowing their statistical significance
- Enables assessment of selective reporting of outcomes
 - "addition, removal, or change in the priority of review outcomes between the protocol, methods section, and results of a review" (Shamseer et al., 2015)



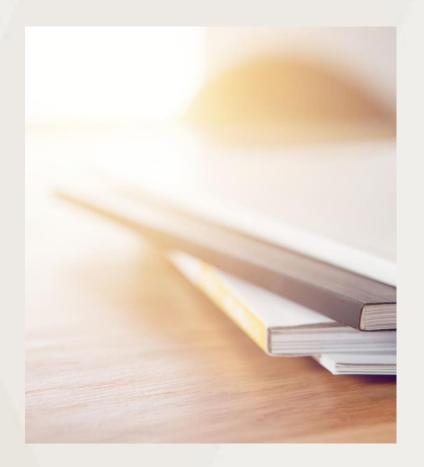
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 - Select outcomes independently of knowing their statistical significance
- Enables assessment of selective reporting of outcomes
 - "addition, removal, or change in the priority of review outcomes between the protocol, methods section, and results of a review" (Shamseer et al., 2015)
- More efficient
 - Know which outcomes to extract from references



Recap

- Discuss how to develop a systematic review question
- Discuss how to define outcomes



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