

Intro to Evidence Synthesis

- 1) Evidence Synthesis
 - a) Using existing information to learn about a topic and sometimes make a decision
- 2) Why it's helpful
 - a) Puts information in a useable format and determines which studies are accurate
 - b) Combine many studies for a greater conclusion
 - c) Looks at an entire body of research
 - d) Determines if findings change depending on different conditions
 - e) Identify research gaps
- 3) Types of evidence synthesis
 - a) Narrative Review
 - i) Literature is interpreted based on personal experience
 - b) Systematic Review
 - i) Uses existing research
 - ii) Includes qualitative and sometimes quantitative analysis as well as recommendations for the future
 - c) Meta-analysis
 - i) Uses statistics to form a quantitative summary
- 4) Rapid Review
 - a) Scoping Review
 - i) Summary of existing evidence by examining size and scope of existing literature
 - b) Evidence Map
 - i) Includes analysis of what is missing from a body of evidence
- 5) Systematic Review
 - a) Focus attention on strengths and limits of existing research
 - 1) Prepare your topic
 - a) Make sure there is enough research to address your question
 - b) Craft a clear question that is specific enough
 - c) Check PROSPERO
 - d) Include population, interventions, comparators, outcomes, and design
 - 2) Search for studies
 - a) May need to look in unconventional places
 - i) Unpublished research
 - ii) Academic conferences
 - iii) Gray literature
 - b) Avoid publication bias and reporting bias
 - 3) Screen your studies
 - a) Remove what does not answer your question or has research methods you want to avoid
 - 4) Extract the data
 - a) Pull out what does answer your question

- 5) Analyze and Synthesize Your Evidence
 - a) Meta-analysis will require statistical tools and checking studies
- 6) Report Your Findings
 - a) Describe the steps you took
 - b) Share what you discovered
- 6) Limitations of systematic review
 - a) No research on topic
 - b) Not enough research on topic
 - c) Question is too philosophical or historical
- 7) Practical considerations
 - a) Length of time
 - b) Team needed
 - c) Cost
 - i) It is possible to conduct one on your own time