Systematic Review- Boot Camp
MAY 2020

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What is a systematic review?

• A review in which specified and appropriate methods that are intended to limit bias and random error have been used to identify, appraise, and summarize studies addressing a defined question. It can, but need not, involve meta-analysis.

• Includes a comprehensive search of all potentially relevant articles and the use of explicit, reproducible criteria in the selection of articles for review.

Qualitative or mixed-method systematic reviews

Qualitative research is concerned with the subjective world providing insight into social, emotional, and experiential phenomena.

Many different approaches: Scoping reviews, Realist and Meta-narrative reviews, Bayesian meta-analysis, critical interpretive synthesis, realist synthesis, qualitative cross-case analysis, meta-narrative mapping, rapid reviews

Sources: Mays N, Pope C, Popay J. “Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field.” J Health Serv Res Policy. 2005 Jul;10 Suppl 1:6-20.; University of York, UK.
What is a meta-analysis?

A statistical technique that summarizes the results of several studies in a single weighted estimate, in which more weight is given to results of studies with more events and sometimes to studies of higher quality.

7 steps for a systematic review

1. Formulate a sensible question
2. Develop eligibility criteria
3. Locate & select studies
4. Assess study quality
5. Extract data
6. Synthesize/Analyze data
7. Present and interpret the results


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PROCESSES

Stage 1: Planning the Review
Step 1 – Forming a review panel
Step 2 – Mapping the field of study
Step 3 – Producing a review protocol

Stage 2: Identifying and evaluating studies
Step 4 – Conducting a systematic search
Step 5 – Evaluating studies

Stage 3: Extracting and synthesising data
Step 6 – Conducting data extraction
Step 7 – Conducting data synthesis

Stage 4: Reporting
Step 8 – Reporting the findings

Stage 5: Utilising the findings
Step 9 – Informing research
Step 10 – Informing practice

Document the search process in enough detail to ensure that it can be reported correctly in the review.

It is recommended that review authors seek guidance from their medical/healthcare librarian or information specialist at the earliest opportunity with respect to documenting the search process.
Process continued: Systematic Reviews

See UBC Library Research guide Systematic Review Search Methodology for:

• Documentation process
  CRD Guidance for Undertaking Reviews in Health care Appendix 3
  PRISMA Flowchart and checklist

• Alternate places to search
  Grey literature, reference chasing, hand searching, authors etc.

• Techniques
  Advanced search tools, reverse engineering, Covidence

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Managing the process cont’d

• Keeping track
  – Word document of terms used
  – Refworks for tallying references
  – Refworks for deduping
  – Excel spreadsheet of citations for tracking ILL orders
# TIPS TO STAY ON TRACK

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• Roles

– What role will each of you play in the systematic review process?