

HPS 432/742

Research Methods in Psychology C

Trimester 1, 2020

Lecture 1

Why do we summarize past research?

- Identify gaps in research
 - o What's next RQ that's needed to be asked?
 - o Better understand why there are conflicting findings
- To work out what the research is telling us
 - o What is the best way to treat a problem? (important for healthcare sector, social workers)
 - o What is the best advice to give to avoid problem?
 - How much exercise can reduce health problems?
 - Government, healthcare sector
 - Often not found in 1 study, need compile research

What happens when incorrectly summarize past research?

- Waste time (undertake poor research)
 - o Come to wrong conclusion, some don't need to do research
- Waste money (client, taxpayers)
 - o Opportunity cost (money could have been used on other projects)
- Tell people wrong things to do
 - o Wrong application
 - o No significant difference, harmful towards people, catastrophic outcome to population

Where do we find summaries of research?

Traditional/Narrative Literature Review	Systematic Review
Expert opinion, traditional/narrative literature reviews, textbooks	Systematic Reviews and meta analyses
Same approach in critiquing other studies and have overall review	Different approach from T/NLR
Psych general question → database → conclusion	

Features of T/NLR terms

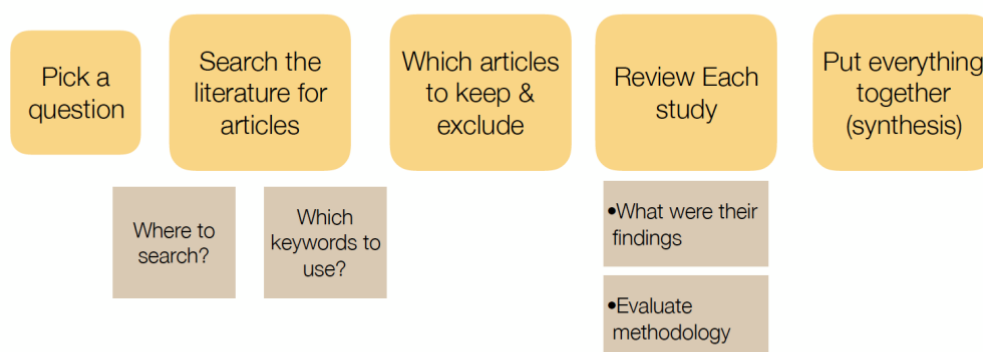
- RQ → broad in scope
 - o Apply to many groups
- Sources and search terms – not mentioned
 - o Intro bias, might miss studies that don't have the keyword or in the source

- POV readers: not aware of bias existing in reviews
- Selection of studies – not mentioned
 - Intro bias, might not include studies they don't like (non-significant findings)
- Appraisal of each study – variable
 - Intro bias, selectively pick which studies get criticism
 - No rationale/explanation of which character is evaluated, why pick up that particular aspect of study?
 - Methodology of 1 study flaws pointed out but didn't mention if other studies have same problems (selective)
- Synthesis of literature
 - Refers to overall conclusion, qualitative approach
 - Unclear if effective or not
 - Evaluate some studies as more important than others (based on own judgment, might be based on liking design of study and come to conclusion)
- Don't always accurately summarize past research

Features of systematic review (Mulrow & Cook, 1997)

- Question – very specific (PICO/PECO)
- Sources and search – all disclosed (reported in review)
- Selection – have criterion which is systematically applied to all studies (tells readers of selection process)
- Appraisal – evaluated using a systematic approach (use framework/tool to evaluate studies and methodology)
- Synthesis – can be qualitative, meta-analyses (quantitative approach)
- Example: psychotherapy
 - Adults/child/elderly/special group
 - Psychotherapy (what types, duration)
 - Comparison group? (PT vs drugs, yoga, hypnosis)
 - Primary outcome (depression, anxiety levels, days of loss due to illness)
- Reduces bias
 - Stop pre-existing views of person writing report influence selection of studies, how they're evaluating studies and conclusion
 - Helps invent and develop better interventions and diagnostic approaches

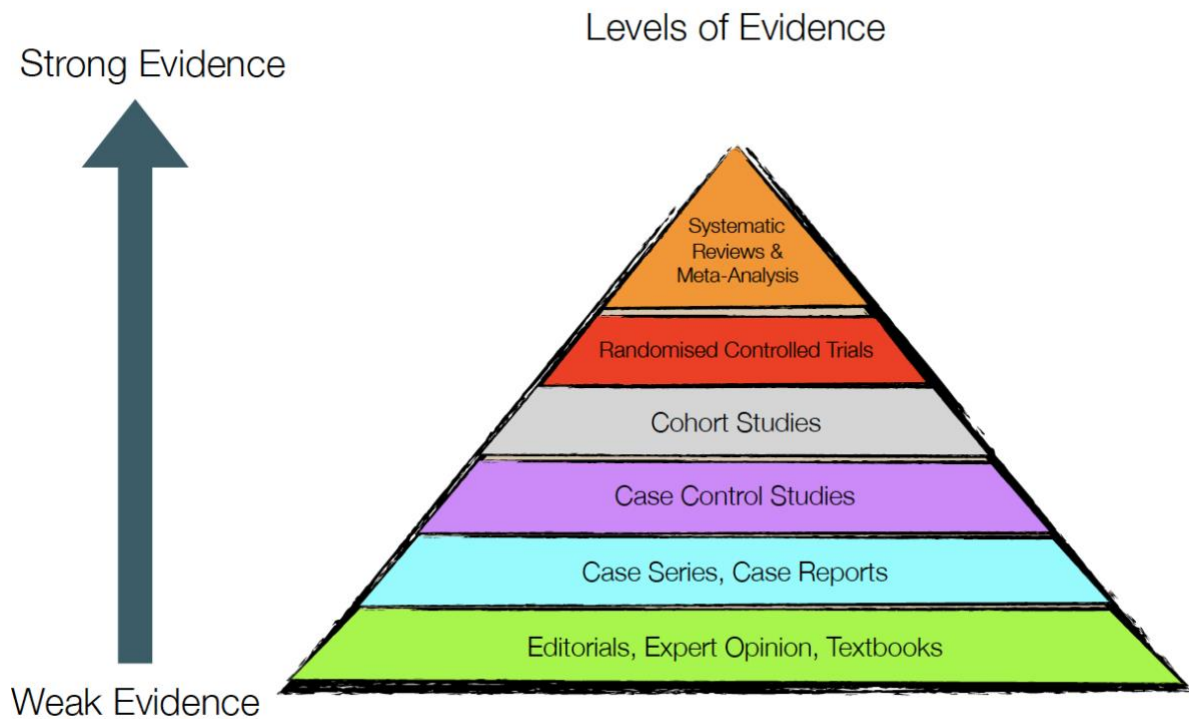
General stages of reviewing literature



- Specific processes associated with boxes differs between T/NR and SR

Levels of evidence/ evidence hierarchy

- Can appreciate that some types of evidence might be of a better quality than others
 - o Evidence for intervention, diagnostic tool, risk factor, protective factor
- Types of evidence
 - o Primary studies
 - o Literature review
 - o Some more useful for answering RQ than others
- Levels of evidence → guidelines to help rank evidence
 - o Want to know strength of evidence



- Some study designs are inherently better at answering questions
- Best sources of evidence (top) → summarize primary studies in least bias way
- Bottom layer → poor source of evidence irrespective if summarize CR, CCS, CS, RCT (evidence poor because conclusion can be biased)

Different types of primary studies

Good internal & external validity

