Starting your knowledge synthesis

A practical guide for researchers new to evidence synthesis

Created by Joanne Wincentak MSc(OT) | Holland Bloorview Kids Rehabilitation Hospital | Evidence to Care 2019 ©

Do you have a broad review topic in mind?

Yes!

No

Use design thinking approaches to identify a topic

Generating topics
- Brainstorming
- Concept mapping
- Problem statement

Prioritizing topics
- 2x2 matrix
- Dot voting

Conduct a preliminary search of your topic

Does a review on your topic already exist?

Yes

( go back to prioritizing topics )

No

Yay you get to do a review!
**Systematic review**

**Purpose**
Seeks to systematically search for, appraise and synthesize research

- **Indication**
  - Determine effectiveness
  - Analyze human experience
  - Assess measurement quality

- **Example**
  - Does early intervention increases gross motor function in kids with CP?
  - What are the experiences of kids with ASD during school transitions?
  - What are the measurement properties of assessments on parent engagement in rehabilitation for kids?

**Output**
- Implications or recommendations for practice through critical appraisal
- Gaps in the literature
- Address conflicting results

---

**Scoping review**

**Purpose**
Aims to identify the nature and extent of research

- **Indication**
  - Identify the state of evidence in a given field
  - Clarify definitions or concepts
  - Examine methods used to conduct research on a specific topic
  - Identify characteristics of an intervention, model, practice

- **Example**
  - What types of KT products do allied health professionals use?
  - How is ‘medical complexity’ defined?
  - Which methods are used to research biofeedback?
  - What are the characteristics of infant care models?

**Output**
- Informs best practice. But, implications for practice can be more limited than those from a systematic review
- Gaps in the literature
- Rationale for systematic review

---

**Focus the research question**

Once you have scoped the literature and decided on the review type, frameworks can be used to focus the research question. Two commonly used frameworks are:

**Framework Description**

<table>
<thead>
<tr>
<th>Framework</th>
<th>Description</th>
<th>Review type</th>
</tr>
</thead>
</table>
| **PICO(T)** | Population (description of the group)  
Intervention (intervention, therapy, practice)  
Comparison (alternative to the intervention)  
Outcome (goal of intervention)  
Type of study or time factors | Systematic review |
| **PCC** | Population (description of the group)  
Concept (intervention, phenomena, characteristic)  
Context (care setting, location) | Scoping review |
This brings us to the end of ‘starting’ your knowledge synthesis.

The next steps are to:

1. Use the PRISMA guide to create a protocol for your:
   - Systematic review (PRISMA-SR)
   - Scoping review (PRISMA-ScR)

2. Refer to a trusted manual for your:
   - Systematic review guided by Cochrane
   - Scoping review guided by Joanna Briggs or by Colquhoun et al. (2014).

Acknowledgments
Thank you to Fanny Hotzé, Carly Cermak and Shauna Kingsnorth for their thoughtful feedback.

References


