

Summary of “Systematic and Scoping Reviews: Exploring Similarities, Differences, & Tradeoffs”: A 2023 KTDRR Online Workshop

Dates of Two-Part Workshop: July 11 and 13, 2023, and repeat sessions on August 1 and 3, 2023

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Workshop Objectives:

1. List the type of synthesis methods most suitable for answering research questions,
2. Describe generally the types of knowledge produced by synthesis methods, and
3. Discuss why alignment of questions and methods is so important.

Key Points & Takeaways:

1. Knowledge syntheses are the product of contextualization and integration of findings from individual research studies; in this way, they are greater than the sum of the parts.
2. Scoping reviews have identified [multiple methods for syntheses](#); alignment of questions to these methods is complex and challenging.
3. A common decision is whether to conduct a scoping or systematic review, which have similar but distinct approaches:
 - “A systematic review uses systematic and explicit methods to identify, select, critically appraise, and extract and analyze data from relevant research” ([Higgins & Green, 2011](#)).

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- “Scoping reviews are exploratory projects that systematically map the literature available on a topic, identifying key concepts, theories, sources of evidence and gaps in research” ([Grimshaw, 2010, p. 34](#)).
4. The purpose of systematic reviews differs from that of scoping reviews (generally):
- Systematic reviews:
 - » Make sense of large bodies of homogenous, empirical information;
 - » Determine “what works”;
 - » Increase precision or estimate of effect;
 - » Reduce bias (preplanned methods);
 - » Estimate “truths” that can be generalized across different situations;
 - » Use efficient scientific techniques or methods (costs less than a new study); and
 - » Plan an approach (a priori), which allows for a transparent (reproducible) approach ([Arksey & O’Malley, 2005](#)).
 - Scoping reviews:
 - » Examine the extent, range, and nature of available research on a topic or question;
 - » Determine the value of undertaking a full systematic review (precursor);
 - » Summarize key concepts, factors, and definitions and disseminate them across a body of research evidence that, for example, is heterogenous and/or complex; and
 - » Identify research gaps in the literature to help plan for and commission future research ([Arksey & O’Malley, 2005](#)).
5. Research questions also differ between systematic and scoping reviews:
- A scoping review asks, “What is published and what are the gaps?”
 - A systematic review asks, “What is effective? What should we do?”
6. “Scoping reviews are useful for preliminary examinations of expansive bodies of evidence when it remains unclear what specific research questions can be posed and valuably addressed, and for identifying important gaps in new and emerging areas of scholarship” ([Thomas et al., 2017, p. 162](#)).

7. Scoping review methods:
 - a. Framework proposed by [Arksey and O'Malley \(2005\)](#);
 - b. Framework elaborated by [Levac, Colquhoun, and O'Brien \(2010\)](#);
 - c. Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework ([Daudt 2013](#)); and
 - d. Resources that were [published or compiled by JBI](#) to help guide the conduct of scoping reviews.
 - e. PRISMA-ScR (2018) [Scoping Review Reporting Checklist and Resources](#), including an educational video.
8. Table 1 identifies the features that differ between systematic and scoping reviews.

Table 1. Features that differ between systematic and scoping reviews

Feature	Systematic Review	Scoping Review
Time frame	Unpredictable	Unpredictable
Objective	Intervention effectiveness	Mapping of literature
Question	Focused	Broad
Information sources	Comprehensive	Comprehensive
Eligibility	Predefined	Predefined, iterative
Appraisal	Expected	Atypical
Data harvesting	Extensive	Restricted
Output(s)	Includes recommendations	Does not include recommendations
Reporting guideline	PRISMA-P (Protocols) and PRISMA	PRISMA-ScR

Notes. Scoping reviews may include a stakeholder engagement process (not a component of systematic reviews). Scoping reviews can be a precursor to the systematic review process.

Presenting results within a scoping review can differ, and typically does, from the way review authors would present a traditional meta-analysis. Complex, narrative findings are challenging to summarize. Consider SWIM-A (Systematic Review without Meta-Analysis) guidance. For example, results of scoping reviews can be presented graphically, using dots that vary in size to represent the volume of literature available on a given topic.

9. For reporting, systematic reviews use PRISMA and scoping reviews use PRISMA-ScR. PRISMA-ScR includes seven sections and 22 relevant items (out of the 27 original PRISMA items).

Other Key References:

- [The Pandora's Box of Evidence Synthesis and the Case for a Living Evidence Synthesis Taxonomy](#)
- [Scoping Reviews in Health Professions Education Challenges, Considerations and Lessons Learned About Epistemology and Methodology](#)
- [Scoping Reviews in Medical Education: A Scoping Review](#)