Types of Literature
Reviews

Kim Harp, MLS
Danielle Westmark, MLIS
Leon S. McGoogan Health Sciences Library
Outline

What is Evidence Synthesis
Types of Literature Reviews
Choosing your Literature Review
Planning your review & Getting Started
Working with a librarian
Citation Management Tools
Resources
Objectives

Define two literature review types and understand their methods.

Locate two resources that can assist with identifying the appropriate review for your project.

Identify tools and resources to use while working on your literature review.
Evidence Synthesis

A general term that captures a widening universe of methodologies; aims to reduce biases in the process of selecting studies that will be included in a review

Uses transparent and reproducible methods to exhaustively search for information on a topic and select studies on a well-defined predetermined topic

Types of Literature Reviews

## SALSA Framework

<table>
<thead>
<tr>
<th>Search</th>
<th>How much do you need to find? How much will you know what to look for?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraisal</td>
<td>Do you need to appraise the literature for quality? How?</td>
</tr>
<tr>
<td>Synthesis</td>
<td>What kind of synthesis could this include?</td>
</tr>
<tr>
<td>Analysis</td>
<td>What kind of analysis can come out of this?</td>
</tr>
</tbody>
</table>
# Rapid Review

## Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of what is already known about a policy or practice issue, by doing a comprehensive search and critically appraise results</td>
<td>Completeness of searching determined by time constraints</td>
<td>Time limited formal quality assessment</td>
<td>Typically, narrative and tabular</td>
<td>Quantities of literature and overall quality/direction of effect of literature</td>
<td>~ 2+ months</td>
</tr>
</tbody>
</table>

**Example:** Lacey Bryant, S. & Gray, A. Demonstrating the positive impact of information support on patient care in primary care: a rapid literature review. Health Information and Libraries Journal 2006, 23(2), 118–25
# Systematized Review

## Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes elements of a systematic review while stopping short of a full systematic review; good for post graduate assignments</td>
<td>Comprehensive searching</td>
<td>Can include a quality assessment</td>
<td>Narrative with tabular accompaniment</td>
<td>What is known; limitations in methodology</td>
<td>~ 3+ months</td>
</tr>
</tbody>
</table>

**Example**: Cornet, R. & de Keizer, N. Forty years of SNOMED: a literature review. BMC Medical Informatics and Decision Making 2008, 8(Suppl. 1), S2
# Critical Review

## SALSA

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims to demonstrate the writer has done an exhausted search and critically evaluated the quality</td>
<td>Seeks to identify most significant items in the field</td>
<td>No formal quality assessment</td>
<td>Typically narrative</td>
<td>Seeks to identify conceptual contribution to embody existing or derive new theories</td>
<td>~3+ months</td>
</tr>
</tbody>
</table>

# Umbrella Review

## Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods to systematically review existing reviews (SRs) on the topic; bring together evidence from mult. reviews into a single document</td>
<td>Identification of component reviews, not primary studies</td>
<td>Quality assessment of studies within those reviews</td>
<td>Graphical and tabular with narrative commentary</td>
<td>What is know; recommendations for practice; what remains unknown; recommendations for future research</td>
<td>~ 4+ months</td>
</tr>
</tbody>
</table>

Mixed Studies/Mixed Methods Review

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>A combination of methods where one significant component is a literature review (can be systematic).</td>
<td>Sensitive search to retrieve all studies</td>
<td>Generic appraisal instrument or separate appraisal process with checklists</td>
<td>Narrative and tables</td>
<td>Look for correlations between characteristics; identify gaps in literature</td>
<td>~ 6+ months</td>
</tr>
</tbody>
</table>

# Scoping Review

## Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>AppraisaL</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims to identify nature and extent of research evidence (includes ongoing research)</td>
<td>Exhaustive search</td>
<td>No formal quality assessment</td>
<td>Tabular with some narrative quality</td>
<td>Characterizes quantity and quality of literature; by study design and other key features;</td>
<td>~ 8+ months</td>
</tr>
</tbody>
</table>

## Mapping Review

### Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps out and categorizes existing literature; commission further reviews or primary research by identifying gaps in the literature</td>
<td>Comprehens  ive; determined by time/scope restraints</td>
<td>No formal quality assessment</td>
<td>Graphical and tabular</td>
<td>Characterizes quantity and quality of the literature; identify needs for primary or secondary research.</td>
<td>~ 8+ months</td>
</tr>
</tbody>
</table>

# Meta Analysis + Systematic Review

## Methods Used (SALSA)

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistically combines the results of quantitative studies to provide a more precise effect of the results</td>
<td>Exhaustive, systematic review of the literature</td>
<td>Quality assessment may determine inclusion/exclusion or sensitivity.</td>
<td>Graphical and tabular with narrative commentary</td>
<td>Numerical analysis of measures of effect assuming absence of heterogeneity</td>
<td>~12 + months</td>
</tr>
</tbody>
</table>

## Systematic Review

**Methods Used (SALSA)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Search</th>
<th>Appraisal</th>
<th>Synthesis</th>
<th>Analysis</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeks to systematically search for, appraise and synthesis evidence, often adhering to guidelines on the conduct of the review</td>
<td>Aims for exhaustive/comprehensive searching</td>
<td>Quality assessment may determine inclusion/exclusions</td>
<td>Narrative with tabular accompaniment</td>
<td>What is known; recommendations for practice; what remains unknown; recommendations for future research</td>
<td>~12+ months</td>
</tr>
</tbody>
</table>

## Systematic vs Scoping Reviews

<table>
<thead>
<tr>
<th><strong>Systematic Reviews</strong></th>
<th><strong>Scoping Reviews</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions are focused; feasibility, effectiveness of a treatment or practice</td>
<td>Questions can be broader in scope; identify characteristics/concepts</td>
</tr>
<tr>
<td>Uncover international evidence</td>
<td>Identify the scope of available evidence in a given field</td>
</tr>
<tr>
<td>Confirm current practice/address variation/locate new practices</td>
<td>Examine how research is conducted</td>
</tr>
<tr>
<td>Identify and investigate conflicting decision</td>
<td>A precursor to a systematic review</td>
</tr>
<tr>
<td>Produce statements to guide decision making</td>
<td>To identify and analyze knowledge gaps</td>
</tr>
</tbody>
</table>

Both systematic and scoping reviews include exhaustive searching, aim to be transparent and reproducible, and the data is extracted and presented in a structured way.

What Review is Right for You?

Previously known as "What Review is Right for You?"

This tool is designed to provide guidance and supporting material to reviewers on methods for the conduct and reporting of knowledge synthesis.

Select the type of review:

Quantitative
Qualitative

Click here to read our article about the development and evaluation of this tool in the Journal of Clinical Epidemiology.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td>How much time do you have?</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>What resources/constraints do you have?</td>
</tr>
<tr>
<td><strong>Expertise</strong></td>
<td>What expertise do you have?</td>
</tr>
<tr>
<td><strong>Audience</strong></td>
<td>What does your audience want out of this review?</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>How rich and available is the data?</td>
</tr>
</tbody>
</table>
Creating Your Research Question
Why a Research Question?

• For your review to be useful, the audience must be confident that you have answered the question you set out to address and be clear on what you have covered as well as what you chose to omit (and why)

• When you state your research question you set clear boundaries around your topic.

• Defining your research question helps you be consistent throughout your review and to ensure that you deliver what you promised

Frameworks

Types of Frameworks

- PICO(TTS)
- SPICE
- SPIDER
- PURPOSE

Framework questions can help clarify and classify concepts in your topic. Many types of frameworks are available, and the best choice of framework depends on your research topic. These are useful tools but are optional and may not work with all components of your question.
## Frameworks

<table>
<thead>
<tr>
<th>Framework</th>
<th>Description</th>
<th>Question</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **PICO**  | Most used in health professions to find information concerning prognoses, diagnoses, and therapies. Used to compare on intervention with another. | In adult patients undergoing third molar extractions, do antibiotics prevent complications such as postoperative infections? | P: adult patients undergoing third-molar extractions  
I: antibiotics  
C: no antibiotics  
O: postoperative complications |
| **PURPOSE** | Used in clinical settings for Evidence-based practice interventions intended for implementation and incorporation into clinical workflow | Increase PICC line duration without upper extremity DVT for hospitalized adult patients by the end of the calendar year with a nurse-led vascular access team triage using guided ultrasound. | P: hospitalized adults  
U: nurses  
R: vascular access team  
P: difficult IV access  
O: improve IV access rates  
S: general medicine units  
E: One year |
| **SPICE** | Can be used to find literature evaluating the outcomes of a service, project, or intervention. | For teenagers in South Carolina, what is the effect of provision of Quit Kits to assist with giving up smoking compared to no support? | Settings: South Carolina  
Perspectives: Teenagers  
Intervention: Quit Kits  
Comparison: Cold turkey/no support  
Evaluation: giving up smoking with Quit Kits vs Cold Turkey/No support |
| **SPIDER** | Designed to structure qualitative research questions; focuses on interventions and more on study design, and samples vs populations. | What are the experiences of young parents who attend antenatal education classes? | Sample: Young Parents  
Phenomenon: attendance of antenatal education classes  
Design: Interviews  
Evaluation: Experiences  
Research Type: Qual. studies |

For more examples, visit the Literature Reviews Guide: [https://unmc.libguides.com/literaturereviews/researchquestion](https://unmc.libguides.com/literaturereviews/researchquestion)
Planning Your Review

1. Gather your team
2. Define your research question
   - Use tools like PICO(TT), SPIDER, etc., to help create your research question.
   - Systematic Review, Meta-Analysis, Scoping Review? Register your Protocol!
3. Plan your approach to your research and review
   - What do you know about your topic? What’s the status of research in this area?
   - Will it be a review of all the literature, or will you focus on recent materials, or specific studies (RCTs, etc.)
4. Search the literature
5. Store and Organize your searches
6. Analyze the materials you found
7. Write

Meet with your librarian!
Working with a Librarian @ UNMC

- What review is right for you
- Locate existing studies and/or protocols
- Identifying appropriate databases
- Developing reproducible search strategies
- Exporting and importing results
- Citation management support/training
- Reporting your findings (methods)
- Identifying journals
- Author rights, digital commons, etc.
Citation Management Tools

- **EndNote & Zotero** allow you to:
  - Store and manage results from a literature search
  - Attach full-text PDFs for note-taking, highlighting, etc.
  - Share libraries (or groups) with colleagues
  - Create quick and easy bibliographies/reference lists
  - Insert in-text citations and create a reference list in Word

EndNote is available from UNMC
Zotero is freely available for download
Screening Tools

Covidence [https://www.covidence.org/](https://www.covidence.org/)

- Import citations, works with citation managers
- Screens titles and abstracts
- Upload PDFs for full text screening
- Data extraction
- Populates risk of bias

Covidence has been approved by IT; not available from UNMC. Free version + $$ version (must be purchased by departments/individuals).
Screening Tools

Rayyan: https://www.rayyan.ai/
- Import citations, works with citation managers
- Screens titles and abstracts
- Add PICO elements
- PRISMA (beta)
- Annotate, de-duplicate, and blind review feature

Rayyan has been approved by IT; not available from UNMC. Free version + $ version (must be purchased by departments/individuals).
Resources

• Systematic Review Guide:
  https://unmc.libguides.com/systematicreview

• Scoping Review:
  https://unmc.libguides.com/systematicreview/scopingreviews

• Writing Assistance
  • Writing Center:
    https://www.unmc.edu/library/services/writing.html
  • Grammarly:
    https://unmc.libguides.com/az.php?a=g&p=1
Reference List


Contact Us

McGoogan Library

askus@unmc.edu
402-559-6221
unmc.edu/library

Kim Harp
kimberly.harp@unmc.edu

Danielle Westmark
danielle.westmark@unmc.edu