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- **Title of the workshop:**

  Effective Literature Reviews: Foundations, Methods, and Best Practices

- **Open Courseware:**

  https://health.int.eu.org/UMY teaching/
  https://research.henning.md

- **What is a Literature Review?**

  - A systematic, explicit, and reproducible method to identify, evaluate, and interpret academic work
  - Critical analysis of existing knowledge to map the state of research
  - Foundation for new research, highlighting gaps, contradictions, and trends

- **Why Conduct a Literature Review?**

  - Understand the historical and current state of knowledge
  - Identify research gaps and justify new studies
  - Build theoretical frameworks and methodological strategies
  - Avoid duplication and enhance scientific contributions

Conceptual Framework - Types of Literature Reviews

Main Types of Reviews

- Narrative Review: Broad, descriptive, not systematic
- Systematic Review: Structured protocol, reproducible and transparent
- Scoping Review: Mapping the field without quality appraisal
- Integrative Review: Synthesizing diverse methodologies and data types

Conceptual Framework - Types of Literature Reviews

Main Types of Reviews

- Narrative Review: Broad summary, non-systematic, expert-driven synthesis
- Systematic Review: Explicit protocol, exhaustive search, critical appraisal, reproducibility
- Scoping Review: Mapping available evidence, broader scope, no detailed quality appraisal
- Integrative Review: Combines quantitative and qualitative evidence for new conceptualizations
- Rapid Review: Compressed timeline, streamlined methods, for urgent decision-making

Conceptual Framework - Types of Literature Reviews

Narrative Review – Key Differences

- Non-systematic search
- Source selection based on expertise and judgment
- May not use formal critical appraisal
- Descriptive and thematic synthesis
- No formal risk of bias analysis
- Emphasis on expert interpretation and broad perspective
- Greater subjectivity accepted

Conceptual Framework - Types of Literature Reviews

Systematic Review – Key Differences

- Predefined protocol required (e.g., PROSPERO)
- Exhaustive, reproducible search across multiple sources
- Critical appraisal of all included studies mandatory
- Detailed risk of bias assessment
- Structured presentation following PRISMA standards
- High emphasis on methodological rigor and reproducibility

Conceptual Framework - Types of Literature Reviews

Scoping Review – Key Differences

- Broad, exploratory question
- Comprehensive but flexible search
- No formal quality assessment mandatory
- Mapping of concepts, fields, and evidence types
- Focus on breadth rather than depth
- Identification of knowledge gaps and research needs

Conceptual Framework - Types of Literature Reviews

Integrative Review – Key Differences

- Includes both quantitative and qualitative data
- Adapted search and appraisal strategy to accommodate different methodologies
- Integrated synthesis across empirical and theoretical sources
- Model or framework development possible
- Special focus on creating new understanding or theoretical insights

Conceptual Framework - Types of Literature Reviews

Rapid Review – Key Differences

- Streamlined or simplified methods due to time constraints
- Limited databases, fewer reviewers, possible omission of critical appraisal
- Summarized key findings quickly
- Scope narrower, methods less exhaustive
- Clear statement of methodological limitations and need for future more comprehensive reviews

Conceptual Framework - Choosing the Right Type
Selecting the Appropriate Review Type

- Define your research goal
- Match the review type to the purpose: exploration, synthesis, evaluation, theory building
- Understand discipline-specific standards and expectations

Methodological Process - Formulating the Research Question
Starting Point: Clear Objectives

- Define precise and answerable research questions
- Frameworks to assist: PICO, SPIDER, SPICE
- Avoid overly broad or vague topics

Formulating Questions – PICO
PICO Framework (Primarily for Clinical and Intervention Research)

- Population: Who is the focus of the research?
- Intervention: What is being introduced or studied?
- Comparison: What is the alternative (if applicable)?
- Outcome: What are the expected effects or results?

Example: In adults with hypertension (P), does daily meditation (I) compared to no intervention (C) reduce blood pressure (O)?

Formulating Questions – SPIDER
SPIDER Framework (Suited for Qualitative and Exploratory Research)

- Sample: Who is being studied?
- PI: Phenomenon of Interest: What experience, event, or process?
- Design: What is the methodological approach?
- Evaluation: How are outcomes measured or assessed?
- Research type: What is the nature of the research (qualitative, quantitative, mixed)?

  Example: Among university students (S), experiences of remote learning (PI), using qualitative interviews (D), exploring perceived stress (E), within qualitative studies (R).

Formulating Questions – SPICE
SPICE Framework (Primarily for Qualitative and Service Evaluation Research)

- Setting: Where is the study taking place?
- Perspective: Who is the target population or stakeholders?
- Intervention: What action, event, or phenomenon is being studied?
- Comparison: What alternative is being considered (if applicable)?
- Evaluation: What are the outcomes or indicators of success?

  Example: In rural health clinics (S), for nurses providing primary care (P), does telemedicine support (I) compared to traditional in-person consultation (C) improve patient satisfaction and access to care (E)?

Methodological Process – Designing a Search Strategy
Building an Effective Literature Search

- Identify key concepts from your research question
- Select relevant databases (e.g., PubMed, Scopus, Web of Science)
- Develop keywords and controlled vocabulary (e.g., MeSH terms)
- Use Boolean operators (AND, OR, NOT) to structure search queries
- Document search terms and strategies systematically

Methodological Tools – MeSH Terms
Medical Subject Headings (MeSH)

- Controlled vocabulary used by databases like PubMed
- Provides standardized indexing terms for biomedical topics
- Improves search precision and comprehensiveness
- Combines with keywords to enhance database queries
- Regularly updated to reflect advances in knowledge

Methodological Process – Screening and Selection Ensuring Relevance and Quality

- Apply inclusion and exclusion criteria consistently
- Screen titles, abstracts, and full texts in stages
- Use tools like PRISMA flow diagrams to document the selection process
- Prioritize relevance, methodological rigor, and publication quality
- Manage references systematically using citation managers

Methodological Tools – PRISMA

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

- Guidelines for transparent and complete reporting of systematic reviews
- Includes a standardized flow diagram for documenting study selection
- Enhances reproducibility and methodological clarity
- Widely adopted in health sciences and social research
- PRISMA 2020 is the current updated version

Methodological Process – Critical Appraisal
Evaluating the Quality of Sources

- Assess validity, reliability, and relevance of studies
- Use standardized critical appraisal tools (e.g., CASP, AMSTAR, JBI)
- Identify biases, methodological limitations, and conflicts of interest
- Differentiate between high-quality evidence and weaker contributions
- Record appraisal decisions transparently

Methodological Tools – CASP
CASP (Critical Appraisal Skills Programme)

- Provides structured checklists for critical appraisal of research
- Covers multiple study designs: qualitative, cohort, randomized controlled trials, etc.
- Guides assessment of validity, results, and relevance
- User-friendly and widely used in academic and clinical settings
- Supports evidence-based decision-making

Methodological Tools – AMSTAR
AMSTAR (A Measurement Tool to Assess Systematic Reviews)

- Validated instrument for critically appraising systematic reviews
- Focuses on methodological rigor, transparency, and bias reduction
- Includes specific criteria such as a priori design and duplicate study selection
- Updated version: AMSTAR 2, suitable for systematic reviews including randomized and non-randomized studies
- Essential for evaluating quality before including reviews in further syntheses

Methodological Tools – JBI
Joanna Briggs Institute (JBI) Critical Appraisal Tools

- Comprehensive suite of tools for appraising diverse study types
- Supports systematic, scoping, and umbrella reviews
- Includes appraisal checklists for qualitative studies, prevalence studies, case reports, and more
- Widely recognized for applicability in health, social, and educational research
- Linked to JBI evidence synthesis methodologies

Methodological Process – Managing References
Efficient Reference Management

- Select a reliable reference manager (e.g., Zotero, Mendeley, EndNote)
- Import references directly from databases and organize them by project
- Annotate and tag key studies for easy retrieval
- Ensure correct citation style is used consistently throughout the document
- Backup your library regularly to avoid data loss

Methodological Process – Organizing the Literature
From Collection to Coherent Structure

- Group studies by themes, methodologies, or chronology
- Map relationships, agreements, and contradictions among studies
- Use tables, concept maps, or matrices for synthesis planning
- Identify gaps and emerging patterns
- Prepare a structured outline before starting to write

Final Stages – Communication, Dissemination, and Exploitation Beyond Publication

- Communication: Sharing results clearly with academic and public audiences
- Dissemination: Targeted distribution of findings to stakeholders and practitioners
- Exploitation: Application of findings to practice, policy, and future research agendas
- Use conferences, policy briefs, open access repositories, and social media strategically
- Plan these steps early to maximize research impact

Final Stages – Protocol Registration and Publication
Why and How to Register a Review Protocol

- Registers transparency and prevents duplication of efforts
- Specifies methods before starting, reducing bias and selective reporting
- Key platforms: PROSPERO (health-related reviews), OSF Registries, INPLASY
- Publication of protocols in journals increases credibility
- Essential for systematic and scoping reviews, highly recommended for integrative reviews