

Chapter 7

Finding and Reviewing Research Evidence in the Literature

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Purposes of a Literature Review

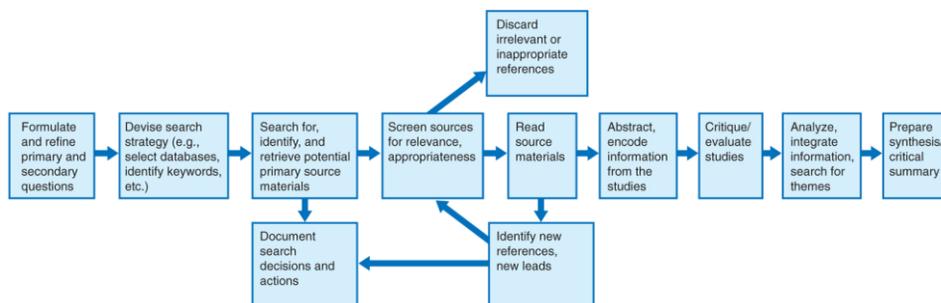
- Primary purpose:
 - Summarize evidence on a topic
 - Integrate research evidence to sum up what is known and not known
 - Communicate the state of evidence to others
 - Lay the foundation for new studies
 - Help researchers interpret their findings

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Types of Information for a Research Review

- Principal reliance on **primary sources** (the actual research reports written by researchers who conducted the study)
- Less reliance on **secondary sources** (summaries of studies by others)
- Peripheral use of clinical anecdotes, opinion articles, and case reports may broaden understanding of a problem or demonstrate a need for research.

Flow of Tasks in a Literature Review



Question

Tell whether the following statement is True or False.

Researchers should rely heavily on secondary sources for information.

- a. True
- b. False

Answer

- b. False

Rationale:

Researchers need to rely principally on primary sources (actual research reports written by those who conducted the study) for information.

Secondary sources should not be considered substitutes for primary sources because secondary sources are not sufficiently detailed and may not be completely objective.

Developing a Search Strategy

- Search **bibliographic databases** via a computer.
- Use the **ancestry approach** (“footnote chasing”).
 - Use the bibliography of a recent relevant reference to find earlier related studies (ancestors).
- Use the **descendancy approach**.
 - Use a pivotal early study in citation indexes to find later studies (descendants) that cite the pivotal study.

Starting an Electronic Search

Keywords

Coaching Life Coaching Phobias
Career Counselling
Therapy Business Coaching
Confidence Relationships
Sheffield Yorkshire International

- Most electronic searches start with a search for substantive topics, initiated by entering **keywords**.
- Keywords do not have to be the same as the **subject headings** in the database because most search programs have **mapping** capabilities.
- QN=> For quantitative studies, the keywords are typically the independent and dependent **variables** and, often, the **population**.
- QL => For qualitative studies, the keywords are the central **phenomenon** of interest and the **population**.

Types of Search in Electronic Databases

- **Subject search**—search for topics or keywords in the database
- **Textword search**—search for specific words (which can be keywords) in text fields of the database record (e.g., in the abstract or title)
- **Author search**—search for prominent researchers in a field

Example: PUBMED→

<https://www.ncbi.nlm.nih.gov/pubmed/>

Tools for Searching: Wildcard Characters

- Can extend a search to multiple words with the same root, by adding the database's wildcard character to a truncated word
 - A **truncation symbol** (often an asterisk, *) expands a search term to include all forms of a root.
 - *Example:* **nurs*** would search for nurse, nurses, nursing
- Different databases or software packages use different wildcards, such as * or \$.

Question

When **beginning a search for relevant evidence**, the researcher uses the bibliography of a recent relevant reference to find studies. This method is called:

- a. Descendancy approach
- b. Keyword searching
- c. Ancestry approach
- d. Use of wildcards

Answer

- c. Ancestry approach

Rationale:

The ancestry approach, also called “footnote chasing,” involves the use of a bibliography in a recent and relevant reference to find earlier related studies.

The descendancy approach uses a pivotal early study in citation indexes to find later studies.

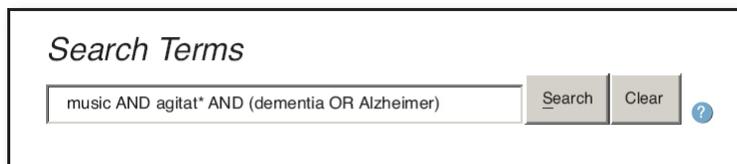
Keyword searching involves a search using words for the substantive topics.

Wildcard characters use a truncated word with the database’s approved character.

Tools for Searching: Boolean Operators

Boolean operators: can be used to combine, restrict, or broaden searches

- **AND:** instructs computer to retrieve references in which two or more terms are present (e.g., obesity AND diabetes).
- **OR:** instructs computer to retrieve references containing **any** of 2+ terms separated by “OR” (e.g., obesity OR diabetes).
- **NOT:** narrows a search by retrieving information for one term, not the other



Search Terms

music AND agitat* AND (dementia OR Alzheimer) Search Clear ?

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Tools for Searching: Quotation Marks

- Yields citations in which the exact phrase appears in text fields
- The use of quotation marks around a phrase can change the search results.
 - For example, a search for “high blood pressure” would yield overlapping but nonidentical results to **high blood pressure**.

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Key Databases for Nurse Researchers

- **CINAHL** (Cumulative Index to Nursing and Allied Health Literature)
 - It covers references to hundreds of nursing and allied health journals as well as to books and dissertations.
- **MEDLINE** (Medical Literature On-Line)
 - The premier source for bibliographic coverage of the biomedical literature.

CINAHL

- Covers nursing and allied health literature from 1982 to present
- Contains citations, abstracts (for most entries), and names of any data collection instruments
- Can be searched through a commercial vendor (e.g., OVID) or directly through www.cinahl.com

Example of a CINAHL Reference

Critical Care Nursing Quarterly, 2008 Jan–Mar 31 (1): 35–47 (17 ref)

Critical Care Nursing Quarterly	:	Name of journal that published the study
2008	:	Year of publication
Jan–Mar	:	Month of publication
31	:	Volume
(1)	:	Issue
35–47	:	Pages
(17 ref)	:	Number of references

Question

Tell whether the following statement is True or False.

The nurse researcher can use CINAHL to search for relevant information published in 1975.

- a. True
- b. False

Answer

b. False

Rationale: CINAHL covers nursing and allied health literature from 1982 to present.

MEDLINE

- Developed by the U.S. National Library of Medicine
- Covers about 5,600 nursing, biomedical, and health journals and has more than 24 million records
- Can be accessed for free anywhere in the world via [PubMed](#)
- Uses a controlled vocabulary called [MeSH](#) (Medical Subject Headings) to index entries

Google Scholar

- It is a popular bibliographic search engine that was launched in 2004 and includes articles in journals from scholarly publishers in all disciplines and books, technical reports, and other documents.
- One advantage of GS is that it is accessible free of charge over the Internet.
- It allows users to search by topic, by a title, and by author and uses Boolean operators and other search conventions.

Screening, Documentation, and Abstracting

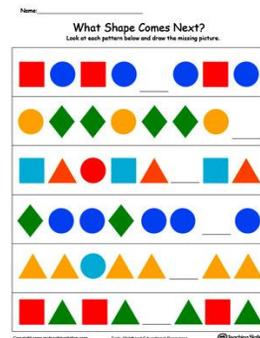
- After identifying potentially relevant citations, the references must be:
 - **Screened** and gathered (best to work with a copy of the article)
 - **Documented**—note search actions and results
 - **Abstracted and recorded**—notes are made of key pieces of information (e.g., using a literature review **protocol**).

Evaluating and Analyzing the Evidence

- Integrating and synthesizing information across studies for a research literature review have much in common with a qualitative analysis.
- In both, the focus is on identification of important **themes**.

Analyzing the Evidence in a Literature Review

- A variety of themes (patterns) can be pursued.
- **Substantive themes** are likely to be especially important:
 - What is the pattern of evidence?
 - What findings predominate?
 - How much evidence is there?
 - How consistent is the body of evidence?
 - What are key gaps in the body of evidence?



Analyzing the Evidence in a Literature Review—(cont.)

- **Methodologic themes**
 - What methods have been used to address the question?
 - What are major methodologic deficiencies and strengths?
- **Generalizability themes**
 - To what populations does the evidence apply?
 - Do the findings vary for different types of people?

Question

Tell whether the following statement is True or False.

The primary focus for analyzing the evidence in a literature review is to evaluate the quality of the evidence.

- True
- False

Answer

b. False

Rationale:

The primary focus of **analyzing the information** in a literature review is to **identify important themes**.

Writing a Literature Review: Some Tips

- Organize the material logically (e.g., work from an outline).
 - Ex: a table including columns with headings such as Author, Sample Characteristics, Design, and Key Findings. Such a table provides a quick overview that allows you to make sense of a mass of information.
- Write objectively.
- Summarize in your own words.
- Use appropriate language (e.g., “Several studies **have found** . . .”).
- Conclude with a concise state-of-the-art summary of the existing evidence.

Let's review

- An especially important electronic database for nurses is:
 1. NurSearch
 2. EMBASE
 3. Web of Knowledge
 4. CINAHL

Answer

- CINAHL
- The CINAHL database covers literature in the nursing and allied health fields from 1982 to present.
- NurSearch database does not exist.
- Web of Knowledge is a useful electronic resource but is not a primary database for nurses.
- EMBASE is useful but is not a primary database for nurses.

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- To a nurse seeking evidence on a question, a literature review article in a journal would be considered:
 1. A primary source
 2. A descendant in the descendancy approach
 3. Bibliographic database
 4. A secondary source

Answer

- A secondary source
- → is a description of previously completed studies – studies usually completed by different people than the one writing the review.

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- What is a major purpose of doing a literature review?
 1. Developing critical thinking skills
 2. Developing research skills
 3. Establishing the state of existing evidence on a topic
 4. Developing bibliographic

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- In which qualitative research tradition is a literature review least likely to be done prior to going into the field to collect data?
 1. Grounded theory
 2. Ethnography
 3. No major qualitative research tradition does a literature review at the outset
 4. phenomenology