BUILDING SEARCH STRATEGIES & FINDING RELEVANT RESEARCH

MIDW 115 Research Methods for Midwives

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RESOURCES

- Woodward Library, UBC
  - Midwifery Research Guides
  - Videos (CINAHL, Medline OVID, Tests and Measures, Library Tutorials for Nurses)

- Literature Review Guide
- Systematic Review Methods Guide
- Grey Literature Guide
BY THE END OF THE CLASS YOU WILL …

• Be able to translate your PICO/PEO formatted research question into a search strategy
• Be able to find resources on your topic using PubMed
• Be able to find resources on your topic using CINAHL
• Be able to access, save, and export articles
6 ELEMENTS OF A GOOD SEARCH

• Use PICO format for clinical questions
• Search concepts one at a time to be combined later
• Select appropriate keywords *and* subject headings for key PICO elements
• Truncation/proximity operators used appropriately
• Applying limits at the very end of the search
• Verify results are relevant to your research question
PICO can help break down your question into distinct concepts that you can then build into a search strategy.

**P** Patient / population / problem (who or what eg. ailment, population)

**I** Intervention / exposure (treatment, test, procedure, medication, or illness or injury if studying the effects of an illness on a population)

**C** Comparison (there aren’t always multiple alternatives, or you might be looking at something VS nothing)

**O** Outcome (the outcome you’re looking at might be to relieve or eliminate symptoms, prevent recurrence, lower mortality, find a correct diagnosis)
**PICO REVIEW EXAMPLE**

In women suffering from urinary tract infections, can cranberries help to prevent recurrence?

<table>
<thead>
<tr>
<th>P</th>
<th>Patient / population / problem</th>
<th>UTIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Intervention / exposure</td>
<td>Cranberries</td>
</tr>
<tr>
<td>C</td>
<td>Comparison</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>Outcome</td>
<td>Prevent or decrease recurrence</td>
</tr>
</tbody>
</table>
TRANSLATING YOUR PICO QUESTION INTO A SEARCH

Problem UTIs AND Intervention Cranberry Juice AND Outcome Reduce/Eliminate recurrence

Add limit? Eg. Publication Type

P: UTIs I: Cranberry Juice O: Recurrence
# PRACTICE PUTTING A CLINICAL QUESTION INTO PICO

<table>
<thead>
<tr>
<th>Patient or Problem</th>
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<tbody>
<tr>
<td>Intervention</td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td></td>
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<tr>
<td>Outcome</td>
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</table>

Express your PICO elements in the form of a well-built PICO question (i.e., among P does I versus C affect O?)
What is PubMed?

PubMed is the premier biomedical database with over 26 million journal articles in the life sciences. The Medline database makes up the majority of the content in PubMed. Medline and additional PubMed content is also available through subscriptions to the OVID and EBSCO interfaces.

What is a database?

Databases are “large collection of data organized especially for rapid search and retrieval”\(^1\). Databases are composed of metadata – data about the article such as title, author, abstract. When we search in PubMed or Medline we are only searching the metadata – NOT the full text of the article.
DATABASE RECORD

We search the database fields (metadata), not the actual full text article.
SUBJECT HEADINGS

- **Controlled vocabulary** indexing the article’s content. Subject specialists index the article by tagging it with controlled vocabulary from a standardized list.

- Organized in a **hierarchical structure** which allows for searching at various levels of specificity.

- Articles are **indexed to the most specific subject heading** (in Medline called MeSH) e.g. Infant, Extremely Premature
KEYWORDS

• Search terms that you create to search the author’s words
• Will return matches for that exact word from the title, subject headings, abstract, and some other fields
• Can return irrelevant results
  eg. Search “cancer” and get “The intrinsic fragility of DNA” by an author affiliated with Cancer Research UK
WHY SEARCH USING BOTH?

Why search Subject Headings?

• Subject headings **control for synonyms, different forms of expression, spelling variations, etc.**
• **Efficiently and quickly** connects you to the research about your topic

Why use keywords?

• It **takes a few months** for articles to be indexed with a subject heading
• Sometimes an appropriate **subject heading is not available**
• Keywords aid in finding the older literature in topics with newer MeSH terms
  - e.g. Zika Virus MeSH only added in Jan 2016
  - e.g. Trisomy 13 Syndrome and Trisomy 18 Syndrome added in 2018
The Ethos of Caring Within Midwifery: A History of Ideas Study

Asa Larsson 1, Yvonne Hilti 2

Affiliations + expand
PMID: 27760858  DOI: 10.1177/0969733016669866

Abstract

Background: The midwifery profession in Sweden has a history since the early 1700s when government training for midwives began. Midwifery is historically well described, but the idea of caring within midwifery is not described.

Publication types

› Historical Article

MeSH terms

› Ethics, Nursing ★
› History, 20th Century
› Humans
› Midwifery / ethics
› Midwifery / history ★
› Sweden
Keyword strategy searches here, but finds only the exact terms specified if present.
PUBMED TOOLS

Clinical Queries
Single Citation Matcher
MeSH
NCBI Journals

Titles with Your Search Terms
Similar Articles
Search Details
Collections
Save
Export

Search builder
➤ MeSH
Clinical Queries for quick clinical searches

Search Box

Additional tools for finding help, tutorials, specific articles, & MeSH
Limit your search by article type, date, or text availability.

Click here for more filters.

Articles automatically sorted by best match

How did PubMed interpret your search?
How did PubMed interpret your search?

Click Advanced Search
How did PubMed interpret your search?

Select the arrow under Details
How did PubMed interpret your search?

Search: **domperidone and lactation**


Showing 1 to 1 of 1 entries
# PICO & PUBMED

## Exercise:

- Search in PubMed
- Create an account
- Save an article to a folder

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### Search Terms Table

<table>
<thead>
<tr>
<th>Concept 1 (P)</th>
<th>OR</th>
<th>OR</th>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>AND Concept 2 (I/C)</th>
<th>OR</th>
<th>OR</th>
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<tr>
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<table>
<thead>
<tr>
<th>AND Concept 3 (O)</th>
<th>OR</th>
<th>OR</th>
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CINAHL

Coverage of nursing and allied health literature from 1982 to present.

Includes over 1,250,000 records.

Indexes 2700+ journals, as well selected books, pamphlets, dissertations, audiovisuals in nursing, allied health, consumer health, biomedicine, alternative therapy, health sciences librarianship.
KEYWORD STRATEGIES

1. **synonyms** to describe concept.

2. Join synonyms with **Boolean operator: OR**
   e.g. labour OR childbirth

3. **Truncation: ***
   e.g. lactat* = lactate, lactation, lactating

4. **Adjacency operator: n**
   e.g. (labour OR labor) n3 (obstetric* OR birth OR childbirth OR pregnancy) = the words labour or labor are within 3 words of the words obstetric*, birth, childbirth, or pregnancy
**KEYWORD STRATEGIES**

- **Adjacency operator:** n
- Searches these words in relationship to each other

- **Truncation:** *

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<tbody>
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<td>![Checkmark]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>S3</th>
<th>S1 OR S2</th>
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<tbody>
<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>S2</th>
<th>labo#r n3 (obstetric* OR birth OR childbirth OR pregnancy or vaginal or caesarian)</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S1</th>
<th>DE &quot;Birth&quot; OR DE &quot;Caesarean Birth&quot; OR DE &quot;Natural Childbirth&quot; OR DE &quot;Premature Birth&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
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</tbody>
</table>

- **Boolean OR operator**
Find Subject Headings

Use “Clear” to refresh search bar between searches

Create account to save articles to folders, save searches, and create alerts

Add search lines in “Search History” and by using +
FILTERS

- Limit by language, gender, age, publication date etc.
- Apply at the end of the search.
# CINAHL Search Example

<table>
<thead>
<tr>
<th>Search ID#</th>
<th>Search Terms</th>
<th>Search Options</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S13</td>
<td>S6 AND S10</td>
<td>Limiters: Published Date: 2000/101-2017/1231</td>
<td>View Results (541)</td>
</tr>
<tr>
<td>S12</td>
<td>S6 AND S10</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (651)</td>
</tr>
<tr>
<td>S11</td>
<td>S6 AND S10</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (934)</td>
</tr>
<tr>
<td>S10</td>
<td>S7 OR S9 OR S9</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (10,417)</td>
</tr>
<tr>
<td>09</td>
<td>neonatal OR (baby OR neonatal OR newborn OR infant OR premature) AND (intensive care OR critical care)</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (16,417)</td>
</tr>
<tr>
<td>08</td>
<td>MH &quot;Neonatal Intensive Care Nursing&quot;</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (2,618)</td>
</tr>
<tr>
<td>07</td>
<td>MH &quot;Intensive Care Units, Neonatal&quot;</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (9,675)</td>
</tr>
<tr>
<td>05</td>
<td>S1 OR S2 OR S3 OR S4 OR S5</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (24,267)</td>
</tr>
<tr>
<td>04</td>
<td>milk OR (breast OR breastfed) OR (breast OR fed OR milk)</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (13,931)</td>
</tr>
<tr>
<td>03</td>
<td>MH &quot;Milk, Human&quot; OR (MH &quot;Donor Milk&quot;</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (302)</td>
</tr>
<tr>
<td>02</td>
<td>MH &quot;Lactation&quot;</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (4,657)</td>
</tr>
<tr>
<td>01</td>
<td>MH &quot;Breast Feeding&quot; OR (MH &quot;Breast Feeding Positions&quot;) OR (MH &quot;Latching, Breastfeeding&quot;) OR (MH &quot;Milk Expression&quot;)</td>
<td>Search modes: BooleanPhrase</td>
<td>View Results (17,139)</td>
</tr>
</tbody>
</table>
CINAHL EXERCISE

1. Create an account
2. Search subject headings for your 1st PICO concept
3. Search keywords for your 1st PICO concept
4. Combine your 1st concept terms with OR
5. Assess your terms by looking at the article records
6. Search for your 2nd concept (repeat above)
7. Add both concepts together with AND
8. Apply a limit
9. Save your search
SELECT UPCOMING WORKSHOPS

Full listings – https://events.library.ubc.ca/

Literature Reviews: Searching and Keeping Track
Wed Feb 26, 11:00am-1:00pm | Woodward Library, computer lab

Citation Management using "Mendeley" (Intermediate)
Thurs Feb 27, 12:00pm-2:00pm | Koerner Library, room 548 and 552

Choosing the Right Citation Management Tool for Your Research (Beginner)
Thurs Mar 12, 12:00pm-2:00pm | Koerner Library, room 548 and 552
RESEARCH HELP

Eleri Staiger-Williams
eleri.staiger-williams@ubc.ca | 604-822-4442

Woodward Library Reference Desk
Mon.- Fri. 9-5, Sat. 1-4
wd.ref@ubc.ca | 604-822-4440

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