Using Library Resources to Conduct Effective Literature Searches

Postgraduate Medical Education

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https://library.ucalgary.ca/services/consultation

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Session Overview

• Using the UCalgary Library
  • Services
  • Google Scholar Library Links
  • Covidence

• Predatory Publishers/Conferences,
  • What to look out for, how to assess

• Types of Reviews

• Formulating research questions

• Introduction to OVID Medline
Library Website & Getting Set Up

- Libraries & Cultural Resources (LCR)
  - [https://library.ucalgary.ca](https://library.ucalgary.ca)
  - Always sign in!
  - Chat, catalogue, Interlibrary loan, hours, research databases

- Sage Research Methods
  - [https://methods-sagepub-com.ezproxy.lib.ucalgary.ca](https://methods-sagepub-com.ezproxy.lib.ucalgary.ca)

- Medicine Research Guide
  - [https://libguides.ucalgary.ca/medicine](https://libguides.ucalgary.ca/medicine)

- Scholar’s Toolkit
  - [https://libguides.ucalgary.ca/guides/toolkit](https://libguides.ucalgary.ca/guides/toolkit)
  - Browser Extensions: Lean Library (check this out to bypass paywalls to content LCR already subscribes to)

- Covidence
  - [https://app.covidence.org/organizations/Q4VXa/signup](https://app.covidence.org/organizations/Q4VXa/signup)
  - Use your UCalgary email address when requesting invitation

- Choose a citation management software program
  - Zotero
    - [http://libguides.uvic.ca/zotero](http://libguides.uvic.ca/zotero)
  - Endnote
    - [https://libguides.ucalgary.ca/guides/endnote](https://libguides.ucalgary.ca/guides/endnote)
Google Scholar – be gone, paywalls!

1. Top left icon
2. Click on Settings
3. Click on Library Links
4. Type in Calgary and select both options; save
Setting the Stage

• Databases
  • Where we go to conduct our search

• Articles
  • The results from our database search
  • Articles are published (often in volume/issue) in journals

• Journals
  • Academic publications with a topic/subject of focus

• Peer Review
  • Academic check and balance process
  • Manuscripts are read and assessed prior to being rejected, edited or published
  • Journals are peer-reviewed; some documents in a PR journal may not be (editorial, letter, opinion etc)
  • Ulrichsweb database; look for the referee shirt for confirmation

• Open Access
  • Online dissemination practice of materials that removes cost and other access barriers
  • https://libguides.ucalgary.ca guides/scholarlycommunication/oafund
Tips for Selecting Databases

• Search several databases
  • No database indexes all literature on a topic
  • Overlap between databases is common

• Consider database coverage
  • Academic disciplines
  • Types of documents (journals, conference proceedings)
  • Publications dates, geographical location

• Read the *About* section on publisher website
Schitt’s Creek

When the flithy-rich Roses suddenly find themselves broke they’re forced to rebuild their empire within their only remaining asset - Schitt’s Creek, an arm pit of a town they once bought as a joke.

Season 1  Season 2  Season 3 5>

E1 | 21:49  The Cup Runneth Over
E2 | 21:49  The Drip
E3 | 21:49  Don’t Worry It’s His Sister
E4 | 21:49  Bad Parents

Add CBC Gem: Shows & Live TV to Home screen
Lion
Predatory Publishing

- https://libguides.ucalgary.ca/guides/scholarlycommunication/predatory
- The Alarming Rise of Predatory Conferences - Eos

"Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices."

(Grudniewicz et al., 2019)
Activity 1 – Journal Assessment

Go!

Slow!

Whoa!

Explore the journal you have been assigned and share your observations with the group
Traditional (Narrative) Literature Review

- A narrative review synthesizes a broad collection of material on a specific and clearly defined topic
- Researcher identifies themes and connections
- Search should be well-organized, but the approach does not follow reporting guidelines

Traditional or Narrative Reviews - How to Conduct a Literature Review: A Guide for Graduate Students - Library Guides at Iowa State University (libguides.com)

Narrative Review - Reviews: From Systematic to Narrative - Research Guides at University of Alabama - Birmingham (uab.edu)
<table>
<thead>
<tr>
<th><strong>Examples of Other Literature Review Objectives</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Rapid Review</strong></td>
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<tr>
<td><strong>Scoping Review</strong></td>
</tr>
<tr>
<td><strong>Systematic Review</strong></td>
</tr>
<tr>
<td><strong>Umbrella Review</strong></td>
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</table>
Steps to do When Getting Started

• Establish you review type and scope of project
• If selecting a scoping/systematic review type take the time to orient yourself to the steps
  • [https://libguides.ucalgary.ca/guides/SysRev](https://libguides.ucalgary.ca/guides/SysRev)
  • Can you do this independently?
  • Do you have the time?
• Sign up for Covidence and watch their tutorials
• Sign up for OVID, PubMed and Ebsco accounts
• Sign up for Zotero or Endnote
The Search Process

1. Establish topic of inquiry

2. Re-frame it as an answerable question
   1. This helps when reviewing the literature if you’re on the right track (does the paper address or answer your question?)

3. Identify concepts and search terms
   1. Finding a handful of good papers in Google Scholar/Pubmed can be of great help at this stage

4. Locate Sources

5. Search for Evidence
   1. Establish a solid search in one database before translating it to others

6. Select and Synthesize

*You might need to repeat or circle back on some steps – this is normal*
Small group learning and clinical reasoning

Is small group learning an effective strategy for improving medical students’ clinical reasoning skills?
Research Question

1. Pre-search Question
2. Refinement
3. Pre-search
4. Topic
5. Question
6. Pre-search
Taking the time to do a preliminary search

• Are there recent reviews on your topic?
  • Cochrane; Pubmed; Google Scholar

• If conducting a systematic review or scoping review, check uploaded protocols in PROSPERO, PRISM, BMJOpen
  • [https://www.crd.york.ac.uk/PROSPERO](https://www.crd.york.ac.uk/PROSPERO)
  • [https://prism.ucalgary.ca](https://prism.ucalgary.ca)
  • [https://bmjopen.bmj.com/keyword/protocol](https://bmjopen.bmj.com/keyword/protocol)

• Who are the major scholars in my topic area?

• What work is being presented at relevant conferences and association meetings?

• How do my colleagues write about my research interest?
  • Do you understand what the relevant keywords, phrasing and keywords might be? The evolution of phrasing over time?
Identify Distinct Concepts

• What are the unique elements of your topic that need to be present in the literature to answer your research question?
## Question Frameworks

<table>
<thead>
<tr>
<th>Framework</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICO(S)</td>
<td>Population, Intervention, Comparison, Outcome, (study design)</td>
</tr>
<tr>
<td>CIMO</td>
<td>Context, Intervention, Mechanism, Outcome</td>
</tr>
<tr>
<td>ECLIPS</td>
<td>Expectation, Client group, Location, Comparison, Evaluation</td>
</tr>
<tr>
<td>SPIDER</td>
<td>Sample, Phenomenon of interest, Design, Evaluation, Research type</td>
</tr>
<tr>
<td>SPICE</td>
<td>Setting, Perspective, Intervention, Comparison, Evaluation</td>
</tr>
</tbody>
</table>
Eligibility Criteria

• This part is crucial; remember to refer back
• What needs to be present in my studies to be included in my knowledge synthesis?
  • Age groups
  • Disease presentation or exposure criteria
  • Geography
  • Manufacturers or models
  • Study types (RCT, observational, qualitative)
• Studies that you refer to that don’t adhere to the criteria but that are still helpful to you could be used as background information
Core Databases

• PubMed or Medline
  • Medicine/public health

• EMBASE
  • Medicine, pharmacology, drugs

• Scopus
  • Multidisciplinary

• Web of Science
  • multidisciplinary

• APA PsycInfo
  • Psychology and psychiatry

• CINAHL
  • Nursing and allied health

• ERIC
  • education

• Social Work Abstracts
Grey Literature

All the stuff out there that isn’t traditionally published

- Government reports
  - Canada Commons database, Health Canada etc
- Data
  - Spatial and Numeric Data Services
    - https://sands.ucalgary.ca
- Conference proceedings, professional association materials
- Think tank reports, special interest group materials, white papers
- Clinicaltrials.gov
- Clinical Practice Guidelines
- Social media, news sources, forums, pamphlets, blogs, video, audio
- https://cadth.ca/grey-matters-practical-tool-searching-health-related-grey-literature
- https://guides.library.ubc.ca/greylitforhealth
Identifying Search Terms

• Get googlin’
• Use terms in known articles
  • Find and think of synonyms
• For broad/unwieldly/abstract topics
  • Identify terms for each sub-concept of the topic
  • Special note: medical humanities can be a bit tricky as databases struggle with context
    • Example: searching for “walking with someone in their medical journey”, usually will bring back articles on mobility and not the humanities angle of caring in medicine
    • Don’t let this be a deterrent; medical humanities is very important research, it just takes a different approach to find the right phrasing in the databases
• Use medical databases to discover controlled vocabulary
  • Remember, just because the interface is the same, does not mean the databases are the same
MeSH, Keywords and OVID

- **Medical Subject Headings (MeSH)**
  - Used in Pubmed and Medline (Ovid)
  - Controlled vocabulary
  - Could be thought of as a social media hashtag
    - If you click on a hashtag below someone’s post, you will see all the other content on the platform with that same label applied

- **EMBASE (Ovid) uses a controlled vocabulary index called emtree**

- **Keywords**
  - Free text searching; sort of like the caption below a social media post
  - .mp = all fields search
  - .tw,kf = title/abstract/author supplied keyword
  - .ti = title only

- **Pubmed does keyword and MeSH automatically together, with Medline requiring separate searching. You need both for a good search.**
  - When to use Medline? Big projects like Systematic or scoping reviews, where control and transparency is key

- **Wait to apply filters and limits at the end (filters and limits apply to the last line of the search)**

- **How to search Medline:**
  [https://guides.utoronto.ca/comprehensivesearching/medline](https://guides.utoronto.ca/comprehensivesearching/medline)
Quick Tips MeSH

- Type in a word and let Medline or Embase show you recommended subject headings (you don’t need to know MeSH/emtree in advance)
Quick Tips in Medline

• Resist the urge to select multiple choices UNLESS you are certain they adhere to your eligibility criteria
  • It’s easier to edit a search
  • Resist choosing your keyword.mp (that will bring back the word that shows up in anywhere in a document!)
• “Scope Note” provides a scope/definition
• “Explode” will included narrower terms present if you click on the term
• “Focus” means it the database will only bring back papers where the specific MeSH term has been identified as a main focus (there can be 3-15ish MeSH terms per paper)
• At the beginning of a search, I recommend researchers choose “Include all subheadings” but this is user discretion, and you can select only what you want
• Adjacency will find two concepts with any number of words to each other (adj2, adj10 etc)
• Truncation (denoted by the asterisk *) will replace suffix variances
  • Learn* (learn, learner, learned, learning)
• The question mark (?) will identify characters that may or may not be present in a word
  • P?ediatric
Saving, Sharing, Exporting

- Create an account and save!
  - OVID will time you out in 15 mins of inactivity
  - Consider using project management best practices (identify the database, and the date, version of search etc)

- Share using:
  - Export RIS file type, complete reference, to Covidence or citation manager
  - Max of 2000 citations per export, use the range tool to send out batches (example: 1-1500; 1501-3000 etc)
Search Translation

- Once you have a PubMed or Medline search that you are satisfied with you can start your translation
- Flip your vertical search in OVID to horizontal in Scopus, Web of Science (virtually any other database)
- Open two windows and split screen your completed search with you next database (Embase, for example)
  - Copy and paste your keywords, but any MeSH terms have to be written out so that Embase, or other OVID databases can find it’s appropriate controlled vocabulary.
- Example: when I search for IgA vasculitis in both Medline and Embase, I get two different controlled vocabularies:

  ![Search Translation Example](image)

Sample Search

Note that I’ve grouped distinct concepts together using OR and that there is a combination of MeSH and keywords

<table>
<thead>
<tr>
<th>#</th>
<th>Searches</th>
<th>Results</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>exp Libraries, Medical/</td>
<td>9532</td>
</tr>
<tr>
<td>2</td>
<td>libr* t.</td>
<td>23425</td>
</tr>
<tr>
<td>3</td>
<td>1 or 2</td>
<td>26604</td>
</tr>
<tr>
<td>4</td>
<td>exp Education, Medical, Graduate/</td>
<td>79724</td>
</tr>
<tr>
<td>5</td>
<td>exp Education, Medical/</td>
<td>181574</td>
</tr>
<tr>
<td>6</td>
<td>exp Education, Medical, Undergraduate/</td>
<td>28837</td>
</tr>
<tr>
<td>7</td>
<td>(medic* adj2 student*).tw,kf.</td>
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<tr>
<td>8</td>
<td>(medic* adj2 learn*).tw,kf.</td>
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<tr>
<td>9</td>
<td>(medic* adj2 resident*).tw,kf.</td>
<td>13662</td>
</tr>
<tr>
<td>10</td>
<td>4 or 5 or 6 or 7 or 8 or 9</td>
<td>218417</td>
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<tr>
<td>11</td>
<td>exp Treatment Outcome/</td>
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<tr>
<td>12</td>
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<tr>
<td>13</td>
<td>exp Decision Making/</td>
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<tr>
<td>14</td>
<td>(decision adj2 make*).tw,kf.</td>
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<tr>
<td>15</td>
<td>11 or 12 or 13 or 14</td>
<td>1724706</td>
</tr>
<tr>
<td>16</td>
<td>3 and 10 and 15</td>
<td>21</td>
</tr>
</tbody>
</table>
Thank you!

• If you need assistance, please reach out to our consult form or use our chat service on the library homepage

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