Medical Library, LKCMedicine
Student Consultation Session Services

TIP SHEET

Managing Your Search, Writing & Citation Skills

Year 4 Scholarly Project
Category: Laboratory & Translational Research

Overview of Student Consultation Sessions

The medical library conducts student consultation sessions for year 4 students to assist them primarily on their literature search followed by writing and citation skills for their scholarly project. Ideally, students should be able to perform these skills independently.

Students can register for their consultation sessions on the medical library blog. Before attending these sessions, students are strongly encouraged to:

- complete a PICO & Search strategy worksheet
- read and revise the information literacy e-learning module uploaded on the iLKC website.

This TIP Sheet:

- explains the importance of crafting good search strategies on a database for your literature search and review.
- describes good practices to write and cite your research paper.

Why conduct a good literature search?

It is important to spend some time to plan your search strategies because a systematic and well-organized search identifies the breadth and depth of quality references on a specific topic[1].

Searching Medline via databases like PubMed or Ovid using Boolean search strategies incorporating MeSH terms and synonyms will help you retrieve relevant articles for your research topic. Published journal articles are peer-reviewed and have higher credibility to add quality to your overall research work.

Why write a good literature review?

Given the word count, you should synthesise the information before writing your literature review. A literature review that is information-dense allows your supervisors to easily comprehend the information presented to them.

Additionally, it is important to take note of the writing format & style suitable for your research category.

Why cite your work?

Research involving Evidence-based Medicine, require your supervisors to locate and assess the sources for accuracy of facts and credibility of information.

It is important to cite your work to:

- acknowledge the author's works.
- avoid plagiarism where you use the author's works wholesale.
- demonstrate your ability to paraphrase information.

Don't forget citation styles are important too! Scientific research papers often adopt the Vancouver style whereas Medical Education research topics either adopt the Harvard or APA style.

Reference:

1. Rau JL. Searching the literature and selecting the right references. Respiratory care. 2004;49(10):1242-5.

For further information, contact your medical librarians at medlib@ntu.edu.sg

TIP SHEET: Managing Your Search, Writing & Citation Skills

Category: Laboratory & Translational Research

Tip #1 Practice preliminary reading

a) **Start** searching for books, articles, reports and/or scholarly published materials using:
- NTU Onesearch
- Google Scholar
- Library Databases (Medicine)
- Library Databases (Science)

Some recommended books from NTU library:
- For Scientific writing:
  Hofmann, A. H. (2010). *Scientific writing and communication : papers, proposals, and presentations*. New York : Oxford University Press, 2010.

b) **Collect and build** your key words, MeSH terms and synonyms.

Tip #2 Define your research topic

a) **Consult** your supervisor on how to scope your research topic.

b) **Formulate** your PICO. You can use PICO search engines like Medline (Ovid) and PubMed to keep you the right track.

c) **Find** out more by referring to the information literacy e-learning module uploaded on iLKC website

Tip #3 Develop your search plan

a) **Scope** your search terms/parameters.

b) **Use** the PICO & search strategy worksheet. (Questions 1-3)

d) **Register** for a student consultation session if needed.

Tip #4 Search for the literature using databases

a) **Use** the completed PICO search plan & craft good search strategies.

b) **Conduct** an advanced search on a database.

Some recommended databases:
- Medline (Ovid), PubMed & EBSCO*host* Medline (Medical, Biomedical & Life Sciences)
- PubMed (taxonomy browser)
- ScienceDirect (Physical, Life, Health & Social Sciences, Engineering & Humanities)
- Scopus (Science, Technology, Medicine, Social sciences & Arts and Humanities)
- ProQuest Biological Science Collection (Biological Sciences)
- BioMed Central (Science, Technology, Engineering & Medicine)
- Cochrane Library & Cochrane Clinical Answers (Systematic Reviews)
- Web of Science (Search for top journals, For highly cited papers)
- WILEY ONLINE LIBRARY (Life, Health, Physical & Social Sciences)

c) **Apply** search techniques like Boolean operators, Truncation, Wildcard, Proximity search operators & Limiters

d) **Apply** command filters at the end of your synonym search.
Examples:
- Medline (Ovid)
- PubMed

e) **Save** your search history.

f) **Revise and refine** search if necessary.

Tip #5 Explore grey literature in Medicine

a) **Consult** with your supervisor if you need to source for grey literature for your research topic. Otherwise, you can skip this step.

b) **Register** for a student consultation session for further help.

Tip #6 Export articles

a) **Save** your search history on the database.

b) **Use** EndNote to store and organize references.

Tip #7 Critically read the literature

a) **Understand** the depth of the research study.

b) **Identify** strengths and weaknesses.

c) **Identify** if journal article is useful for your research topic.

Tip #8 Critically appraise and evaluate the literature

a) **Use** reliable critical appraisal worksheets
Some recommended tools:
- CASP checklists
- Critical Appraisal Tools, CEBM, Centre for Evidence-Based Medicine,

b) **Appraise** the evidence, by asking yourself:
- Is the question clear?
- Are the results of the study valid? This is called internal validity.
- What are the results?
- Are the results relevant to my patient (or population)? This is called external validity[1]

c) **Revise** principles of evidence-based laboratory medicine (EBLM) to appraise diagnostic tests and impact on patient outcomes[1]

d) **Consult** your supervisor if needed.

Tip #9 Write to publish

a) **Synthesise** the literature prior to writing your literature review.

b) **Practice** paraphrasing. **Use** Turnitin to check your work before submission.

c) **Identify** the writing format/structure of your research paper[2,3,4]

Tip #10 Cite your work

a) **Include** references or also known as citations to acknowledge the author's works[3].

b) **Be consistent** and use the same citation style throughout your research paper.

c) **Use** EndNote or online citation generators to check the reference style.

References:

1. Price, C. P. (2012). Evidence-Based Laboratory Medicine: Is It Working in Practice? *The Clinical Biochemist Reviews, 33*(1), 13–19.
2. L. Galvan, J. (2006). *Writing Literature Reviews: A Guide for Students of the Social and Behavioral Sciences*.
3. 11 steps to structuring a science paper editors will take seriously. (2018). Retrieved from https://www.elsevier.com/connect/11-steps-to-structuring-a-science-paper-editors-will-take-seriously
4. Kallestinova, E. D. (2011). How to Write Your First Research Paper. *The Yale Journal of Biology and Medicine*, 84(3), 181–190.
5. CASP Checklists - CASP - Critical Appraisal Skills Programme. (2018). Retrieved from https://casp-uk.net/casp-tools-checklists/
6. Mahtani, K., & Mahtani, K. (2017). *critical appraisal Archives - CEBM*. *CEBM*. Retrieved from http://www.cebm.net/tag/critical-appraisal/

Note:
Register for a student consultation session. Book now! For more advice or help, please contact your medical library: medlib@ntu.edu.sg