Literature Search Strategies

This guide is designed to offer guidance, techniques, and advanced approaches to conducting a literature search.

The search terms or **keywords** you use to search are what determine the results you get. Here's a good exercise to help you generate keywords:

1. **Express your topic in a topic sentence/research question:** "In surgical patients, does listening to music in the perioperative setting impact anxiety and postoperative pain?"
   a. The **PICO Model** is a format to help define your question:

P	**P**atient, **P**opulation, or **P**roblem	How would I describe a group of patients similar to mine?
I	**I**ntervention, Prognostic Factor, or Exposure	Which main intervention, prognostic factor, or exposure am I considering?
C	**C**omparison or Intervention	What is the main alternative to compare with the intervention?
O	**O**utcome you would like to measure or achieve	What can I hope to accomplish, measure, improve, or affect?

2. **Generate keyword search terms by identifying the main ideas or concepts within that topic sentence:** "In surgical patients, does listening to music in the perioperative setting impact anxiety and postoperative pain?" = Surgery, Music, Anxiety, or Postoperative Pain

3. **Expand your search terms by brainstorming related terms or synonyms that describe your main ideas:**
   a. **Surgery;** preoperative, intraoperative, pre-anesthesia, postoperative, recovery room
   b. **Music;** music therapy, song, melody
   c. **Anxiety;** stress, nerves
   d. **Postoperative Pain;** pain, ache, suffering, hurt

4. **Which databases to search:** PubMed (you will generally want to search 3 databases)
   a. **Advanced searching in PubMed—MeSH terms and the MeSH database:**
      i. MeSH terms are organized in a hierarchy called a tree, with more specific (narrower) terms arranged beneath broader terms. By default, PubMed includes in the search all narrower terms.
         1. For example, if you looked up the term "Spine" in the MeSH database, PubMed would retrieve every article containing the following terms:
            a. Cervical Vertebrae, Coccyx, Intervertebral Disk, Lumbar Vertebrae, Sacrum, Spinal Canal, Thoracic Vertebrae
      ii. Database located here https://www-ncbi-nlm-nih-gov.proxy.library.vanderbilt.edu/mesh
      iii. Video showing how to find MESH: https://youtu.be/uyF8uQY9wys

5. **Truncation**
   a. Using truncation symbols allows you to expand your results by including various endings for a search term. Most databases will designate a non-alphabetical symbol like **! , *,**

or **?** as a truncation symbol. Using the truncation symbol at the end of the root word will bring back results that include any ending of that root word.

      i. For example, in **PubMed** use the asterisk * and it will retrieve words such as:

            1. Child* = child, child's, children, childish, childlike, childhood

            2. Theat* = theater, theatre, theaters, theatrical

6. Wildcards

    a. Wildcard symbols are used to substitute a designated symbol for one letter of a word. Check the database Help screens to find out the specific symbol. Wildcards are useful if a word is spelled in different ways, but still has the same meaning.

      i. For example, in **PubMed** use the asterisk * and it will retrieve words such as:

            1. wom!n = woman, women

            2. colo?r = color, colour

7. Search Strategy: PubMed – 10/15/2019 – 334 Results

("Perioperative Period"[Mesh] **OR** "Perioperative Care"[Mesh] **OR** preoperative[tiab] **OR** intraoperative[tiab] **OR** perioperative[tiab] **OR** "pre-anesthesia"[tiab] **OR** postoperative[tiab] **OR** "post-anesthesia"[tiab] **OR** "recovery room"[tiab] **OR** "PACU"[tiab]) **AND** ("Music"[Mesh] **OR** "Music Therapy"[Mesh] **OR** "music therapy"[tiab] **OR** music[tiab]) **AND** ("Anxiety"[Mesh] **OR** anxiety[tiab] **OR** stress[tiab] **OR** distress[tiab] **OR** "Pain, Postoperative"[Mesh] **OR** pain[tiab] **OR** pains[tiab] **OR** ache[tiab] **OR** aches[tiab] **OR** suffering[tiab])