Developing a good nursing research question

At a certain point, students often contact the librarian to ask, “How do I find the information I need to answer my research question?”

There are important steps to take before getting to that point, however. **The most important step begins with developing a good research question first.**

- Start by choosing a general topic that is interesting to you.
- Do some preliminary research on that general topic. Run some quick searches in CINAHL, MedLine, PsycInfo and other databases to see what’s been written on your topic. This also will present ideas to you and help narrow your focus. Notice what questions arise in your mind as you read this material.

**Background questions.**
When you begin, it is likely that you will start with background questions. Background questions refer to questions that relate to general knowledge about a topic.

These questions can be answered by consulting resources such as textbooks, ebooks, encyclopedias, handbooks, and overview information such as Fact Sheets located on credible websites such as the Centers for Disease Control.

*Example: What are the risk factors for developing breast cancer?*

TIP: Background reading is great for finding keywords that you can later use when constructing a search query. Make note of these as you read.

**Foreground questions.**
These are questions that seek answers based on current research evidence.

They are associated with the **PICO** method of developing a research question. Foreground questions are best answered by consulting current peer-reviewed research journal articles.

*Example: Does cognitive therapy reduce anxiety in patients with breast cancer as opposed to light therapy?*

**PICO**
- There are many strategies to help you develop a good nursing research question. One that is commonly used is the PICO method.

- PICO is an acronym that represents a method of formulating a good clinical research question.
Example: In patients with breast cancer, does light therapy reduce depression as opposed to cognitive therapy?

P – patients with breast cancer
I – light therapy
C – cognitive therapy
O – reduction in depression

Constructing a Search

Now that you have a research question, you can build a search query.

Search Tips

- Identify one or more appropriate databases to search. Starting with CINAHL and MedLine are best bets. Academic Search Complete is also a very useful database.

- Think of synonyms or related terms for key concepts when constructing your search strategy.

- When addressing the ‘population’ aspect of your search, consider limiters as well as keywords. Perhaps try searches using one and then the other. For example, in CINAHL, age limiters are available for ‘infant, newborn’ but you could also add the keywords newborn OR neonate to your search.

- Before you construct a complicated search, try using the P and I concepts in a search and examine those results. If you have a good set of results, continue to add the other elements.

When using a library database, your search needs to be built out of keywords. Stay away from natural or sentence-like language. These do not yield results the same way they do in a search engine like Google. Identify key concepts from your research question. These will become your keywords for searching.
Example:

- Breast cancer
- Light therapy
- Cognitive therapy
- Depression

Next, identify synonyms or related terms to use along with your key concepts.

TIPS:

- Use medical terminology where appropriate, e.g. *myocardial infarction* instead of *heart attack*.
- As you find journal articles that seem interesting, note what terms are listed as SUBJECT TERMS or KEYWORDS. These words can be used for further searching.

<table>
<thead>
<tr>
<th>Key concept</th>
<th>Synonyms or Related Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer</td>
<td>Breast neoplasms OR breast carcinoma</td>
</tr>
<tr>
<td>Light therapy</td>
<td>phototherapy</td>
</tr>
<tr>
<td>Cognitive therapy</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
</tr>
</tbody>
</table>

So, a search in CINAHL may look like this:

Breast cancer OR breast neoplasms OR breast carcinoma
AND
Light therapy OR phototherapy
AND
Cognitive therapy
AND
Depression
Use limiters to ensure that your results
1) come from scholarly/peer-reviewed journals (if this meets the assignment criteria)
2) are current, typically within a 5-year period.