Search Process Checklist

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Search Process Checklist

☐ Problem/Issue/Question:

☐ Check to see if there is an established way of doing things:

☐ Talked with hospital/unit experts, nurse clinicians and/or nurse manager.

☐ Checked for available protocols.

☐ Checked for available hospital/unit policy

☐ Checked for systematic review/meta-analysis

☐ Checked for practice guideline:

- TRIP Database
- Professional Orgs. (ex. AORN)
- Scientific Societies (ex. American Heart Assoc.)
- Point of Care Tools (ex. Up to Date, Clinical Key)
- US Preventative Services Task Force

Stakeholders/Those Affected by Project:
(May Need to Talk with These People or Departments - Could be Potential Teammates on Project)

☐ Constructing Your Question:

- Start with a background question (broad) and move towards a foreground question (focused – PICO format)

PICO Format – Not Applicable in All Situations

<table>
<thead>
<tr>
<th>PICO Components</th>
<th>Describe PICO Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>P – Patient, Population, Problem, Program: Important Characteristics</td>
<td></td>
</tr>
<tr>
<td>I – Intervention: Drug/treatment, diagnostic/screening test, exposure, etc.</td>
<td></td>
</tr>
<tr>
<td>C – Comparison Intervention (If Applicable): Alternative being considered (placebo, std. therapy, no treatment, gold std.)</td>
<td>What is Being Done Presently</td>
</tr>
<tr>
<td>O – Outcome</td>
<td></td>
</tr>
<tr>
<td>What to measure, accomplish, improve, affect (reduced mortality/morbidity, improve quality of life, accurate &amp; timely diagnosis)</td>
<td></td>
</tr>
<tr>
<td>T – Type of Question</td>
<td></td>
</tr>
<tr>
<td>T – Type of Study</td>
<td></td>
</tr>
</tbody>
</table>

Other Question Formats

- TRIP Database
- Professional Orgs. (ex. AORN)
- Scientific Societies (ex. American Heart Assoc.)
- Point of Care Tools (ex. Up to Date, Clinical Key)
- US Preventative Services Task Force
- PubMed/Medline
- CINAHL
- Cochrane Database of Sys. Rev.
- EMBASE
The Type of Question Can Determine Type of Studies Needed:

- Always want a clinical practice guideline, systematic review or meta-analysis when possible. Most of the time you will find only primary studies.

<table>
<thead>
<tr>
<th>Type of Question</th>
<th>Best Type of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapy: How to select treatments to offer patients that do more good than harm and that are worth the efforts and costs of using them.</td>
<td>Randomized Control Trial (RCT)</td>
</tr>
<tr>
<td>Prevention: How to prevent a disease or condition</td>
<td>RCT / Cohort Study / Case Control</td>
</tr>
<tr>
<td>Prognosis: How to estimate the patient’s likely clinical course over time and anticipate the likely complications of disease.</td>
<td>Cohort Study / Case Control / Case Series or Case Report</td>
</tr>
<tr>
<td>Diagnosis: How to select and interpret diagnostic tests.</td>
<td>Blind RCT / Compared to Gold Standard (Best Treatment / Test for Diagnosis)</td>
</tr>
<tr>
<td>Etiology/Harm: How to identify causes for disease.</td>
<td>RCT / Cohort Study / Case Control</td>
</tr>
<tr>
<td>Cost analysis: Economic costs of all facets of an intervention or disease treatment.</td>
<td>Economic Analysis</td>
</tr>
</tbody>
</table>

Restatement of Question Using PICO Components: *(Needs to be answerable/measurable)*

Searching for the Literature or Evidence

**Search Terms / Concepts:**

<table>
<thead>
<tr>
<th>PICO Components</th>
<th>Primary Search Terms</th>
<th>Alternative Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
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<tr>
<td>O</td>
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</tr>
</tbody>
</table>
Evidence Pyramid:

- Try to find evidence towards top of pyramid and work your way down.

Possible Limits to Apply:

- **Gender:**
  - Male
  - Female

- **Age Groups (May Differ Between Databases):**
  - All Ages
  - Newborn (< 1 month)
  - Infant (1 - 23 months)
  - Pre-School (2 - 5 yrs.)
  - Child (6-12 yrs.)
  - Adolescent (13-18 yrs.)
  - Adult (19 - 44 yrs.)
  - Middle Aged (45-64 yrs.)
  - Elderly (65 - 79 yrs.)
  - Aged (> 80 yrs.)

- **Species:**
  - Humans
  - Animals

- **Languages:**
  - English Only
  - Other Languages ________

- **Years Covered:**
  - Last 5 Years
  - Last 10 Years
  - Year Range ______ to ______

Citations Found That are Related to the Topic:

Known Authors or Researchers in the Field:

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Research and Education Librarian
Nursing Liaison

Email: rebrown2@vcu.edu
Phone: 804-828-1592

Nursing Research Guide:
https://guides.library.vcu.edu/nursing
Useful Keywords or Subject Headings By Database:

- If you find a good article, search for it in PubMed, CINAHL or another database that has a controlled vocabulary and see how it is indexed. This will allow you to find terms that may be useful to find articles on the same topic.

<table>
<thead>
<tr>
<th>Database #1:</th>
<th>Database #2:</th>
<th>Database #3:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

☐ Appraisal of the Evidence Found – Is There Enough?

- Appraising the evidence when it comes to EBP should be done as team with more than one person appraising each article or piece of evidence. Remember that EBP is a team process and that each person may have a different strength when it comes to appraising evidence.

Proceed with Evidence Based Practice Project / Question

☐ Yes

- **Questions:** Contact Your Nurse Clinician, Nurse Manager or VCU Health Nursing Research and Evidence-Based Leadership Council.
- **Next Steps:**
  - Finalize Team Members & Schedule Meetings
  - Assess translation of evidence into practice setting
  - Gather Pre-Intervention / Pre-Project Data
  - Create Action Plan to Implement Change
  - Gather Post Intervention / Project Data
  - Report Results to Decision Makers
  - Adopt Change & Identify Next Steps
  - Disseminate – Poster, Paper, Podium Presentation

☐ No

Proceed with Research Project

- **Next Steps:**
  - Contact the VCU Health Nursing Research and Evidence-Based Leadership Council
  - Find or Be Assigned a Mentor
  - Formulate IRB Proposal and Submit for Approval
  - Collect and Analyze Data
  - Determine Impact or Outcome of the Study
  - Disseminate – Poster, Paper, Podium Presentation
Search Process Checklist

1) **Break Search into Concepts**
   - Easier to Manipulate Your Search to Get Desired Results
   - Start with Two Most Important Concepts from Your Question
   - Combine with Boolean Operators - *AND, OR, NOT*

2) **Come up with Alternative Terms or Concepts for Your Topic**
   - Databases = Different Audiences
   - Remember Terms People Use Are Based on Background/Perspective
   - Sources for:
     - Index/Entry Terms of Subject Headings
     - Terms from Related Articles
     - Google Scholar

<table>
<thead>
<tr>
<th>Concept/ Term #1</th>
<th>Concept/ Term #2</th>
<th>Concept/ Term #3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>AND</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>AND</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>AND</strong></td>
</tr>
</tbody>
</table>

**Concept 1:** Pressure Ulcer  
**OR**  
Pressure Ulcer  
OR Bed Sore

**Concept 2:** Elderly  
**OR**  
Elderly OR Aged

**Concept 3:** Inpatient  
**OR**  
Inpatient OR Hospitalized

**Truncation - Train* (Trained, Trainer, Training, etc.)**  
Be careful where you place * as it could return unrelated articles.

**Grouping - Use Quotation Marks**  
Use to search as a phrase - “Pressure Ulcer” instead of “Pressure AND Ulcer”

**Compound Words** – May need to search word together and separate. (ex. “Health Care”/ “Healthcare”)

**Title and Abstract – Two Best Fields to Search**  
- PubMed - [TIAB] or Advanced Search/Drop Downs
- CINAHL - Use drop down beside Search box / Not Always Necessary

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https://guides.library.vcu.edu/nursing
3) **Use Subject Heading When Possible**
   - PubMed – Medical Subject Headings (MeSH)
   - CINAHL – CINAHL Headings
   - Useful Tools:
     - *MeSH on Demand:* [https://www.nlm.nih.gov/mesh/MeSHonDemand.html](https://www.nlm.nih.gov/mesh/MeSHonDemand.html)
     - *Yale MeSH Analyzer:* [http://mesh.med.yale.edu/](http://mesh.med.yale.edu/)

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controlled Vocabulary (Subject Heading)</strong></td>
<td></td>
</tr>
<tr>
<td>• May provide terms that can broaden or narrow search</td>
<td>• Recently coined terms may not have a subject term assigned</td>
</tr>
<tr>
<td>• Accounts for most common synonyms</td>
<td>• Can be difficult to find if no list of subject terms is included in the database</td>
</tr>
<tr>
<td>• Retrieve all items in database indexed under the topic</td>
<td></td>
</tr>
<tr>
<td><strong>Keyword</strong></td>
<td></td>
</tr>
<tr>
<td>• Retrieve synonyms, jargon, new or distinctive words</td>
<td>• May retrieve irrelevant articles</td>
</tr>
<tr>
<td>• Identify relevant articles quickly to find appropriate controlled vocabulary</td>
<td>• Your search must account for synonyms and alternative terms</td>
</tr>
</tbody>
</table>

4) **Start Your Search Broad and Then Focus**
   - Use Limits/Filter of the Database (*Publication/Study Types, Language, Gender/Sex, Etc.*)
     - Start at the Top of the Evidence Pyramid and Work Down
   - Add an Additional Concept or Term

<table>
<thead>
<tr>
<th>Finding Too Many Articles? Ways to Decrease/Focus Your Results</th>
<th>Not Finding Enough? Ways to Expand/Increase Your Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do not explode</td>
<td>• Explode whenever possible</td>
</tr>
<tr>
<td>• Restrict subject heading to major focus</td>
<td>• Do not restrict subject headings to major focus</td>
</tr>
<tr>
<td>• Choose any relevant subheadings</td>
<td>• Do not choose subheadings</td>
</tr>
<tr>
<td>• Utilize limits to English language, human subjects, review articles, etc.</td>
<td>• Consider searching back in time, look at citations</td>
</tr>
<tr>
<td></td>
<td>• Consider doing a keyword search</td>
</tr>
</tbody>
</table>

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5) **Always Search at Least Two Databases – Unique Articles in Each Database**

- Provide different ways to access same information base and may find evidence in one database using terminology that would not be found in another database.

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**Original version appeared in the following article:**

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Notes