

Worksheet for building the clinical question and formulating a systematic search for
Evidence Synthesis DNP Projects

Preliminary PICO Question

(P)opulation

(I)ntervention

(C)omparison

(O)utcome

(T)ime

Before you begin: Has a systematic review been done on your topic?

Please provide information on previous searching for systematic reviews on your topic.

 [Watch Boxer Library tutorial: How to Find Systematic Reviews](#)

Searched in:

- ☐ Medline (PubMed OR Ovid)
- ☐ Cochrane
- ☐ CINAHL
- ☐ JBI Database
- ☐ Embase
- ☐ Other:

Terms used to find SR's:

Provide citations for relevant reviews and primary research articles.

Include first author, title, journal, year, volume, issue and page numbers

Citation 1	
Citation 2	
Citation 3	

Based on the articles you have found so far...

What populations are under investigation?

--

What is the intervention (s) and range of intervention (variations in dose or type of medication, for example)?

--

What outcome variables are being reported and how ?

--

If a review has been performed on this topic, is a new review warranted? How is this review different (consider a different population or intervention). If the published review is recent and robust, consider a new topic.

If there are several SR on a single topic, consider an umbrella review. Read more about a [meta-synthesis here](#).

Detailed PICO(T) Breakdown

Population

Who is your population of concern? Are age (be specific), gender, nationality, race/ethnicity, occupation, SES, etc. a concern? Be able to justify each of these parameters.

Age:

Gender:

- ☐ Male
- ☐ Female
- ☐ Both

Race/Ethnicity:

- ☐ Any
- ☐ African American
- ☐ Hispanic
- ☐ White
- ☐ Other:

Specific Surgical Population:

Intervention

What intervention are you interested in?

What types of interventions are found in the literature?

Range of values?

Dose? Timing?

Outcomes of interest

Let the literature guide you rather than you prescribing what the outcome will be.

What types of outcomes are reported in studies relevant to the PICO?

How are the outcomes operationalized for the synthesis?

Build a Robust Search Strategy

Develop your search based on your PICO question components or concepts

Divide your topic into its components and provide synonyms for each of these topics. For example, a research question on the best drug therapy for Lou Gehrig's disease would need to include all of the other terms for the disease e.g.. ALS, Amyotrophic Lateral Sclerosis and so on, as well as all of the various drugs to be studied.

▶ [Watch Boxer Library tutorial: From PICO Question to Search Strategy](#)

Topic (parts of PICO question)	Synonyms

Using the Concept Organizer

Now that you have considered all of the possible ways to search for articles on your topic, let's break the question down by "concepts" for each of the components. Use the [Concept Organizer](#) worksheet to map out all aspects of the question. This will allow you to "build" a robust and specific search strategy used in the various databases. Identify **MeSH terms** in PubMed using the National Library of Medicine website (<https://www.ncbi.nlm.nih.gov/mesh/>)

Determine What You Will Include in Your Review

Types of publications to include

What types of articles can be included? Where will you find the BEST evidence to answer

NDNP 906/907

your question? Check all that apply.

- ☐ Original research
- ☐ Peer reviewed research
- ☐ Comment, editorial, letter
- ☐ Literature review, Systematic review
- ☐ Other:

Grey Literature

Grey literature are sources that are not traditionally published. Examples of grey literature include dissertations, conference proceedings, preprints, clinical trials, government reports, and more. Whether or not you search grey literature, and what types of grey literature you search, will depend on your topic.

- ☐ Conference proceedings/papers
- ☐ Dissertations/theses
- ☐ Preprints
- ☐ Government websites
- ☐ Professional organization websites
- ☐ Clinical trials
- ☐ Other:

Languages

What languages are you willing to include?

Include justification (why will you be limiting to X language):

Date Range

How many years of literature do you want to include? How many are relevant? Make the case to limit your search to certain years. Do not decide on an arbitrary value of 10 years. Consider how long the treatment or phenomenon has been around.

- ☐ All possible years
- ☐ Before:
- ☐ After:
- ☐ Between:

Include justification for indicated date range:

Types of studies

What type of study would best answer the research question? Controlled trials only? Case control, cohort, etc? Refer to the [Hierarchy of Evidence](#).

- | | |
|--|--|
| <input type="checkbox"/> All possible | <input type="checkbox"/> Follow-up studies |
| <input type="checkbox"/> Randomized controlled trial | <input type="checkbox"/> Cost-benefit analyses |
| <input type="checkbox"/> Case-control studies | <input type="checkbox"/> Consensus Guidelines |
| <input type="checkbox"/> Retrospective | <input type="checkbox"/> Qualitative studies |
| <input type="checkbox"/> Cohort studies | <input type="checkbox"/> Follow up studies |
| <input type="checkbox"/> Longitudinal study | <input type="checkbox"/> Reviews/meta-analyses |

- ☐ Prevalence studies
☐ Cross-sectional studies

☐ Other:

Literature Searching Log

Have you done searches for studies you would like to include in your review?

Using the plan determined by the [Search Builder](#), provide information on specific searches in at least two databases. "Translate the search" for use in different databases. Ensure that articles found in these searches actually *answer* the PICO question. Use Polyglot (<https://polyglot.sr-accelerator.com/>) for help translating the search to different databases.

Searched in:

- ☐ Medline (PubMed or Ovid)
☐ Cochrane
☐ CINAHL
☐ Embase
☐ Other:

Database/Date	Keywords and MeSH Terms Used	Filters	Results

List below citations for relevant articles that answer the PICO

Use APA 7th Ed. Style

Final Question, Criteria, & Search Strategy

Now that you have gone through this PICO worksheet, it is time to list your FINAL PICO question, inclusion and exclusion criteria, and search strategy. After going through this worksheet, you may have realized that there are some aspects of your question, criteria, and search strategy that you had to edit. That is a normal part of the research process.

Final PICO Question

Format as a question

Final Inclusion/Exclusion Criteria

Format as a bulleted list

Final Search Table

You will create a search table for EACH database you search in.

Platform (e.g. EBSCO, Proquest, OVID, etc.): You must include the platform you used to search each database. Platforms may have an effect on the results or searching strategy so they must be accounted for to increase the reproducibility of the search.

Database:

Date Searched: List the date you performed your search. It is likely that you will run your searches more than once, so it is important to note the date of each re-run of your search. For an example of a completed [Search Table](#), [use this link](#).

Search #	Query List each of your searches. It is helpful to search one concept at a time and then combine them last. This allows you to see what each concept search is returning and to make any changes if need be. You can use line by line searching or block searching.	# of Results
1		
2		
3		
4		
	Filters or Hedges It is a good idea to wait to apply filters (for things like age, location, study type, etc.) until you are finished combining all your concepts together and you are satisfied with the results. It is highly encouraged to use published search filters or create your "filter" as a concept instead of using database filters/limiters due to the limitations of indexing. (See Limiters & Filters page on Boxer Library's Searching Best Practices Guide)	# of Results

Database:

Date Searched:

NDNP 906/907

Search #	Query List each of your searches. It is helpful to search one concept at a time and then combine them last. This allows you to see what each concept search is returning and to make any changes if need be. You can use line by line searching or block searching.	# of Results
1		
2		
3		
4		
	Filters or Hedges It is a good idea to wait to apply filters (for things like age, location, study type, etc.) until you are finished combining all your concepts together and you are satisfied with the results. It is highly encouraged to use published search filters or create your “filter” as a concept instead of using database filters/limiters due to the limitations of indexing. (See Limiters & Filters page on Boxer Library’s Searching Best Practices Guide)	# of Results