



Formulating a Research Question: The Critical Step for the DNP Scholarly Project

The process of developing an effective research question is generally challenging as well as frustrating for the DNP student, yet it is the most critical step in a successful DNP Scholarly Project. The question provides information to determine if the selected topic is relevant and directs the project implementation. From an advanced practice perspective, a well written research question will close the gap between what is currently known and what needs to be known in order to improve patient outcomes.

In formulating a focused research question, the mnemonic PICO or PICOT is used. This is considered a strategy used in the initial step of Evidence-Based Practice. The terms used will assist in determining keywords to locate the current literature and lead to finding the answer. It is important to understand this is a process and it is unlikely an effective question will be designed in one sitting.

PICO Example: Patient B is receiving chemotherapy treatment. The ARNP has ordered prochlorperazine for moderate nausea and vomiting. Patient B has read that ginger is as effective as the prescription and wants to know if that is accurate.

P – Patient/Population/Problem: Patient receiving chemotherapy and is experiencing moderate nausea and vomiting.

I – Intervention: Use of ginger.

C – Compare/Control: Effective as prochlorperazine.

O – Outcome: Reduce the moderate nausea and vomiting.

Formulated Question: In patients receiving chemotherapy who are experiencing moderate nausea and vomiting, is the use of ginger as effective as prochlorperazine in reducing it?

[Please use the following worksheet to assist in the development of a PICO/PICOT question.]

The PICOT Development Worksheet

Question Components	Your Question
<p>P – Patient/Population/Problem</p> <p>Who are the relevant patients? Think about age, sex, geographic location, or specific characteristics that would be important to your question.</p>	
<p>I – Intervention/Indicator</p> <p>What is the management strategy, diagnostic test, or exposure that you are interested in?</p>	
<p>C – Compare/Control</p> <p>Is there a control or alternative management strategy you would like to compare to the intervention or indicator?</p>	
<p>O – Outcome</p> <p>What is the patient-relevant consequences of the intervention?</p>	
<p>T - Time/Type of Study or Question</p> <p>What time periods should be considered? What study types are most likely to have the information you seek? What clinical domain does your question fall under? [Not all questions will include this.]</p>	