

Evidence-Based Practice

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WHAT IS PICO AND WHY IS IT IMPORTANT?

When starting an evidence-based practice project, one important step that is often neglected is narrowing and defining the question to be investigated. We may think we are clear about the problem, but if the question is not carefully focused, the search for the evidence may result in a large number of articles in the literature not relevant to the topic. This can be discouraging for it takes a lot of time to review each article to decide its relevance and merit. Unless the question is appropriately defined, you may also miss related literature. For example, if you are examining the evidence related to employee orientation, there may be research articles reporting findings in the human resources field that could inform professional development specialists who are planning nursing orientation programs. How can we learn to ask a searchable question? Use the PICO format to help you! This article will outline what is PICO, how to use the format, and the resources to

continue your exploration of this important step in using evidence in practice.

PICO is a method for narrowing the problem or issue you are trying to tackle so that you are able to effectively search for the evidence. Melnyk and Fineout-Overholt (2005) identified the process of learning how to ask “the burning clinical question” as so important that it is listed as the very first step in the process of evidence-based practice. Many experts in the field of evidence-based practice suggest that you start with what bothers you as you practice. Sources for generating issues can come from reading a journal article, talking with peers, and attending a conference; from national patient safety goals; or from a variation in practice in your clinical environment. You can refine your question by using Titler’s et al. (2001) evidence-based practice algorithm. This algorithm differentiates questions as problem triggers or knowledge triggers. Examples of problem-trigger questions would be those generated by a risk management case or differing opinions about how to best manage a particular type of clinical care issue. Examples of knowledge-trigger question would relate to new breakthroughs in practice knowledge written about in the literature or differing opinions about the

knowledge basis for a particular nursing procedure.

PICO is the way to more thoroughly define the question. PICO is an acronym for *Problem, Intervention, Comparison, and Outcomes* (Melynck & Fineout, 2005; Newhouse, Dearholt, Poe, Pugh, & White, 2007). The *P* represents a patient population or problem, the *I* represents the process or action to be done with this problem, *Comparison* describes how you examine the difference between one method of intervention to another, and *O* outlines what you expect to find through your search of the problem, intervention, and reports of comparisons in the literature. The *O* can be crafted as the research question. An example of putting PICO into action can be seen in the following example.

PICO CLINICAL KNOWLEDGE PROBLEM

Scenario

Susan, a graduate nurse, is concerned because she was taught in her baccalaureate nursing program that using the wrong size of blood pressure (BP) cuff could result in incorrect BP measurements. She was taught to use small, regular, and large BP cuffs based on the patient’s arm circumference and body weight. Now, as a new grad on an adult medical surgical unit, she has only regular-sized cuffs available. Susan worries, Is she getting inaccurate data because of the incorrect BP values because the same BP cuff size is used with regular, very slender, and obese patients? Of great concern to Susan is that the patient may be receiving improper treatment based on inaccurate BP measures. (Source: http://www.joannabriggs.edu.au/best_practice/bp8.ph#anchor30292142).

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PICO Format

P (problem, population): potentially inaccurate adult patient BP measurements

I (intervention): use of special-sized versus regular-sized BP cuffs

C (compare): compare BP measurements based on cuff size used, location of cuff placement, and patient weight.

O (outcomes): BP cuff size and location of cuff placement on extremity based on patient weight influence accuracy of BP measurement.

This is just one example of a knowledge trigger that affects

the way a clinical nurse practices. You can reflect on what is a problem issue in professional development. Professional development staff could likely generate an unlimited list based on what they face daily in their work on clinical services trying to ensure competency in an environment with throughput issues, rapid patient turnover, frequent transfers across services, and a high volume of students and graduate nurses! The work environment is challenging for professional development specialists.

Using the steps in evidence-based practice can provide some control over how you approach clinical development issues. PICO is an important step in this process.

Knowledge and data give you power to reach success in implementing practice changes.

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