

## Using Evidence-Based Practice

If one of your family members had chronic pain, would you want your healthcare provider to know and use effective treatments that are supported by randomized, controlled research trials?

Would you want to find out how other families and patients coped with the illness and promoted optimal outcomes?

For both health care consumers and health care providers, of course the answer would be “yes!” Although it is seen as very valuable and necessary, many healthcare providers do not base their patient care on evidence from research. This could result in rapidly outdated information.

What would be the best way for healthcare providers to find out current information? Key steps in the research process are:

- Ask the burning clinical question in the format that will yield the most relevant and best evidence.
- Collect the most relevant and best evidence to answer the clinical question.
- Critically appraise the evidence that has been collected. (Is it valid? Relevant? Applicable?)
- Integrate the evidence with your clinical expertise, assessment of the patient’s condition, and available resources. Include the patient’s preferences and values as you make clinical decisions.
- Evaluate the change resulting from implementing the evidence into practice.

### Writing Research Questions

The first step in the research process is to develop an answerable, searchable question. Read this case study and decide what research question you would formulate.

A 74 year old Caucasian woman with osteoarthritis came to the clinic for her annual physical and wellness visit. One year ago she had been walking, but she came in a wheelchair this time. Chronic aching in hips and knees ranged from 4 to 7 on the pain scale, and she was not willing to try opioids. She said, “I don’t want to talk about it anymore. I’m ready to go home.” Her daughter was concerned because the pain was affecting her social life and ability to walk. As her nurse, you want to find a solution, and decrease the barriers (factors, beliefs, and perceptions) could be interfering with pain management.

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You can practice using the PICO format below. There is an animation and database searching is described in the following website:

[http://learntech.physiol.ox.ac.uk/cochrane\\_tutorial/cochlibd0e84.php](http://learntech.physiol.ox.ac.uk/cochrane_tutorial/cochlibd0e84.php)

**Patient population/disease:** (i.e. age, gender, ethnicity, or having a certain disorder)

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**Intervention:** (exposure to disease, other factors or risk behavior)

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**Comparison:** (compared to no diseases, no risk factor, a placebo, and intervention, or no intervention)

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**Outcome:** (risk of disease, accuracy of diagnosis, rate of occurrence of an outcome, or perception)

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Some examples of possible research questions are:

- *Among elderly patients with osteoarthritis, what are the barriers to using opioids?*
- *Among females with chronic knee pain, how does the use of opioids affect the pain scale rating compared to use of non-opioid analgesics?*
- *In elderly Caucasian patients with osteoarthritis, what are the most frequently prescribed pain treatments?*

After you have written your own research question for the case scenario, find the following research article by looking it up in the online databases at your workplace.

Davis, G., Hiemenz, M.L. & White, T.L. (2002). Barriers to managing chronic pain of older adults with arthritis. *Journal of Nursing Scholarship*. 34(2), 121-126.

Read the article and critique it. Was it valid and relevant research?

Was the article helpful to answer your research question? Why or why not?