

Evidence-Based Practice

Evidence-Based Practice is a newer development in Nursing Research, emphasizing the idea that *theory developed* from research may be *used* as evidence that a *practice* needs to be *changed*, and that a change in practice *necessitates* further *research*.

This type of research is a study of other research, whether that research is qualitative, quantitative, or evidence based. It attempts to make sense of the large body of information available in order to implement positive change in practice faster.

Evidence-Based Practice involves these steps (some sources identify five steps, others six):

1. Assessing the need for change in practice / Formulating the question
2. Locating the best evidence
3. Analyzing evidence for validity, etc.
4. Designing the change / Applying the evidence
5. Implementing and evaluating the change / Applying evidence
6. Integrating and maintaining a change in practice / Reevaluating for continued improvement

In a college classroom environment, steps 1-4 can be completed. Steps five and six require the use of a healthcare setting.

Evidence-Based Research Structure

An Evidence-Based Practice structure includes four parts:

1. Introduction
2. Methodology
3. Findings
4. Discussion

Introduction

Use the PICO acronym to plan your introduction:

P Patient/Problem

What does the patient group present with?
What problem are you trying to solve?

I Intervention

What intervention is being considered / evaluated? Cite appropriate literature,

C Comparison intervention

What other interventions are possible? Cite appropriate literature.

O Outcome

What is the intended outcome of the research question?

You should begin or conclude the introduction with a clear statement of the research problem.

Methodology

Instead of collecting data through surveys or interviews, as you would in a quantitative or qualitative study, you are analyzing the literature produced on your topic. Remember, *research is a type of theory that can be used as evidence to change practice*. But what evidence do you select?

Be prepared to discuss the following in a concise, scientific manner:

1. What databases did you search? How many total articles on the subject did you find?
2. What criteria led you to *include* or *exclude* sources? You may wish to present these criteria as two separate lists or tables.

- a. Credibility (Is the source from a reputable researcher or journal?)
- b. Validity (Does the study measure what it says it measures?)
- c. Reliability (Will the same test yield the same result over several applications?)

Remember that validity and reliability are determined by a number of factors, including the demographic pool and sample, the method of examination, and the procedures for analysis.

Consider Minnesota's Diagnosis-Therapy-Harm-Prognosis Model for examining the validity of primary data studies and for selecting which studies to use:

Diagnosis

Did the patient sample include an appropriate spectrum of patients similar to those found in the present case?

Therapy

Was the assignment of patients to treatment groups randomized? Were the treatment groups similar at the start of the study?

Harm

Were the comparison groups similar in outcome in all respects except for the variable studied? Were outcomes measured similarly in all the groups being compared?

Prognosis

Was the follow-up complete? Was there a defined point in the study that the conclusion develops from?

You will want to have similar studies as much as possible.

Findings

Your findings will be an analysis, possibly including a chart or table, that presents the studies you selected as most appropriate for studying your problem and instituting your proposed change.

Be sure to discuss or present the following:

1. Demographic, pool, and sample comparisons
2. Methodological comparisons
3. Results comparisons

Remember that these studies are supposed to be the most reliable and valid studies available for answering the problem you found or the practice you wish to change. Your findings should lay the groundwork for you to make this argument in your discussion section.

Discussion

In a professional research environment, the discussion section should discuss the changed practice, its implementation, and its evaluation. However, this is impossible to do in a classroom situation. Therefore, do the following:

1. Argue that the findings lead to the specific change in practice you identified in your introduction
2. Suggest a strategy for implementation, again considering Diagnosis-Therapy-Harm-Prognosis. Will the change you recommend (and that these studies probably also recommend) work in your situation or not? Why? What changes might be needed?

For further help in Evidence-based practice, read samples of published Evidence –Based Practice studies to get a good idea of how other healthcare professionals write these studies.

It will also be good to visit the University of Minnesota citation at the conclusion of this handout. The link is to a very useful 18 slide interactive presentation on this process!

References

Larrabee, J. H. (2009). *Nurse to nurse: Evidence-based practice*. New York: McGraw-Hill.

Fawcett, J., & Garity, J. (2009). *Evaluating research for evidence-based nursing practice*. Philadelphia: F.A. Davis.

University of Minnesota Bio-Medical Library. (n.d.). *Evidence Based Practice*. Retrieved March 4, 2010 from <http://www.biomed.lib.umn.edu/learn/ebp/mod01/index.html>