Evidence: Critical to Practice and Education

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The focus on evidence-based practice (EBP) has increased exponentially over the past 20 years. For example, a recent search using the keywords “evidence-based practice” yielded 9,616 hits from the MEDLINE (PubMed) database and 4,433 hits from the Cumulative Index of Nursing and Allied Health Literature (CINAHL). When “nursing” was included as a keyword, the search yielded 5,267 hits in PubMed and 172 in CINAHL.

This topic is the focus of several recent articles published in both the American Journal of Nursing and Nursing Research. The January/February 2010 issue of Nursing Research includes a supplement describing how military and Department of Defense nurses have incorporated evidence-based practice into their organization. Clearly, the nursing profession has enthusiastically embraced the concept of using evidence to guide practice.

How is evidence-based practice defined? Given such overwhelming support for the use of evidence in practice, understanding what constitutes evidence-based practice is critical. Irrespective of reference employed, key elements include addressing a clinical problem or question by examining the “best available scientific evidence” (Newhouse, Dearholt, Poe, Pugh, & White, 2007, p. 3) and then integrating that evidence with patient preference and values and nurse expertise” (Melnky et al., 2010, p. 51).

Moreover, EBP is not the same as research utilization (RU), a term employed in the 1970s and 1980s. Newhouse and colleagues (2007) highlight two major differences: RU relies on available and published evidence produced by the conduct of research while EBP takes advantage of organizational data and data that have not yet been published. EBP evidence includes credible information produced by quality improvement projects and experts. As Fitzpatrick (2010) states, “Evidence-based practice thus demands attention to the broad evidence, to what we know as expert clinicians, and to what we know as scientists” (p. 1).

Why the focus on EBP? The proliferation of information, the focus on outcomes and quality improvement, and societal pressure to receive the best care grounded on reliable current information underpin current efforts in the profession to enhance practice based on evidence. A major impetus to the evidence-based practice movement has been the Institute of Medicine’s (IOM) recommendation to base health care practices on evidence in an effort to close the health care quality chasm (IOM, 2003). The IOM goal is that by the end of 2010, “90% of health care decisions in the U.S. will be evidence-based” (Melnky et al., 2009, p. 50). Yet, when investigators assessed nurse readiness for evidence-based practice, findings indicated that two-thirds (67%) always or frequently sought information from a colleague or peer, 72% had not evaluated reports of research, and 82% had never used a hospital library (Pravikoff, Tanner, & Pierce, 2005). A more recent study of nurses in New Jersey, a state with the highest concentration of Magnet-designated hospitals, revealed that when their results were compared to those of Pravikoff and colleagues, slightly fewer nurses (62%) always or frequently sought information from a colleague or peer, while the percent of nurses not evaluating research reports was significantly less (54%) (Cadmus et al., 2008). Moreover, findings indicated that NJ nurses valued EBP and recognized its importance in the delivery of care. Thus, there is still work to be done to assist nurses with the incorporation of evidence into their practice.
What is available to help nurses incorporate evidence into their practice?
Some professional associations, such as Sigma Theta Tau International, have developed position statements (see list of resources on p. 3) and publish a journal dedicated to evidence-based practice (Worldviews on Evidence-based Nursing. Linking Evidence to Action) while others, such as the Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN) and the Registered Nurses Association of Ontario (RNAO) have initiated concerted research-based practice programs to assist nurses with the implementation of practice based on evidence.

While numerous approaches have been developed to help nurses implement EBP, only two are discussed here. Melnyk and colleagues (2009) indicated that a key element to infusing evidence into practice is to create an environment that encourages a spirit of inquiry, defined as “an ongoing curiosity about the best evidence to guide clinical decision making” (p. 49). In order for nurses who are committed to providing the best evidence-based care to act, organizations need to provide the necessary support and resources to do so.

Melnyk and colleagues (2010) offer a 7-step process, of which the first step is setting the stage for inquiry; they call this Step 0. This step is followed by Step 1, which involves asking a clinical question using the patient population (P), area of interest or intervention (I), comparison group or intervention (C), outcome (O), and time (T) format. Problem identification is followed by Steps 2-4: searching the literature, critically evaluating the literature, and then integrating that information with patient preferences and clinical expertise. Decisions or changes made based on the evidence are then evaluated (Step 5). Lastly, results of the evidence-based practice are shared with others in the institution as well as with the broader health care community (Step 6).

Newhouse and colleagues (2007) incorporated some of the same steps into their model: defining a practice question using the PICO format, finding and evaluating the evidence, making decisions about the evidence and its relevance to practice, and sharing results when appropriate. In addition, they stress the use of interdisciplinary teams that include key stakeholders and they highlight the critical role that support from key organizational decision-makers plays in implementing recommended changes in practice.

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References


**Resources**

There are many Internet sources on how to create a clinical question that is structured to help direct the acquisition of evidence. These are just a few examples.

- This source, from Yale University, is concise but informative: [http://www.med.yale.edu/library/nursing/education/clinquest.html](http://www.med.yale.edu/library/nursing/education/clinquest.html)
- Investigators at Arizona State University College of Nursing have added one more element (time) to the PICO formula to yield the acronym PICO(T): [http://nursingandhealth.asu.edu/evidence-based-practice/pico.htm](http://nursingandhealth.asu.edu/evidence-based-practice/pico.htm)
- Another excellent resource is the Academic Center for Evidence-Based Practice, which is dedicated to advancing EBP within an interdisciplinary context: [http://www.acestarUTHSCSA.edu/default.html](http://www.acestarUTHSCSA.edu/default.html)
- The Virginia Henderson International Nursing Library, a free resource of the Honor Society of Nursing, Sigma Theta Tau International, provides online access to over 35,000 abstracts of research as well as to evidence-based information: [http://www.nursinglibrary.org/portal/main.aspx](http://www.nursinglibrary.org/portal/main.aspx)
- Sigma Theta Tau International’s Evidence Based Nursing Position Statement is also a helpful resource: [http://www.nursingsociety.org/aboutus/PositionPapers/Pages/EBN_positionpaper.aspx](http://www.nursingsociety.org/aboutus/PositionPapers/Pages/EBN_positionpaper.aspx)

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**Safe Patient Handling Training Available**

The final version of the Safe Patient Handling Training for Schools of Nursing has been released by the National Institute for Occupational Safety and Health (NIOSH), Publication No.: 2009-127. The material includes a booklet and the safe patient handling and movement Web-based training. Users can play the flash media from a computer, print the PDF of the booklet, or download the entire CD contents (booklet and flash presentation).

Curriculum for the program was developed in partnership with the National Institute for Occupational Safety and Health (NIOSH), the Veterans Health Administration (VHA), and the American Nurses Association (ANA).

The tools are available at [www.cdc.gov/niosh/docs/2009-127/](http://www.cdc.gov/niosh/docs/2009-127/) for download. Please distribute this information widely to your faculty and students. **DN**