Evidence-Based Nursing: Advancing the Art and Science of Nursing Practice

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The focus of the 15th International Nursing Research Congress (July, 2004) was “evidence-based nursing (EBN).” During the EBN pre-conference speakers praised the use of evidence to direct patient care. Although the excitement was high, there were some concerns: “What does evidence-based nursing mean?” “Where do I find evidence?” “How do I know if the evidence I find is good?” “When I find good evidence, what do I do with it?” These questions inspired me to write about EBN for Research Corner readers.

EBN has increased in importance as healthcare professionals and the public have become aware of system flaws leading to decreased health care quality and increased costs. The Institute of Medicine’s (IOM) 1999 report, To Err is Human reports that 36% of patients hospitalized in the U.S. each year suffer from adverse events caused by medical errors and 2% of all patients (44,000 – 98,000 people/year) die as a result. In fact more people die each year from medical errors than from motor vehicle accidents, breast cancer and AIDS. There is also the issue of cost. Medical errors cost the health care system between 17 and 29 billion dollars per year, and ineffective treatments increase those costs further. Sadly, the human costs of errors and ineffective treatments are borne by the patients and their families. The economic costs are borne by each of us.

We all have to admit that the system is broken. Another important report, Crossing the Quality Chasm, (IOM, 2001) focuses on repairing the system. This report recommends focusing on improving healthcare quality and reducing medical errors by basing all services on current scientific knowledge. According to the IOM, if all care was based on the best evidence, care would become standardized at the highest level. For nursing, this means engaging in EBN.

EBN has been called a “problem solving approach to practice” (p. 83, Melnyk, 2004) and is defined as clinical decision making based on the best available scientific evidence, combined with clinical nursing expertise, and considering patient preferences and available resources (DiCenso et al, 1998). As nurses, we may wonder why we are being advised to adopt a new method of solving patient care problems. After all, we learned how to take care of patients in school, and we’ve learned to perform new technical procedures. Many of us read articles on current healthcare topics. Why isn’t this enough? The truth is that knowledge changes so fast in our field that many of the facts a nurse learns in school are out of date by one year after graduation. The good news is that there is a growing volume of scientific literature for us to consult. The Cumulative Index to Nursing and Allied Health Literature (CINAHL) indexes over 2500 journals and Medline indexes about 4000 journals, and adds 4000 new entries per year (Leipziger, 1999). The bad news is that the volume of literature relevant to nursing is HUGE and growing and no one can keep up with it!

Here’s where EBN comes in. While individual nurses should always base their decisions on the best science, EBN is most powerful when practiced at the unit and agency level. In this model, nurses work together to develop EBN strategies that address patient care problems on their units. This ensures that all patients with similar problems benefit from the work the nurses have put into developing EBN strategies related to their conditions and therefore the same (optimum) level of care. Although concerns have been expressed that EBN may lead to “cookbook” nursing, this is unlikely if EBN is practiced as intended. While the definition emphasizes use of the “best available evidence,” there are three other elements that direct EBN practice: the nurse’s clinical judgment; patient preferences; and available resources. Armed with the best scientific evidence, nurses use the assessment and critical thinking skills they learned in school, and have honed in practice, to evaluate their patients’ condition and resources. They then use their communication skills to discuss available EBN options with the patient and family, and their analytic and decision-making skills to choose the best option for the patient. The result of this process may be that the nurse determines that her patient is unlikely to tolerate one intervention with proven effectiveness, and chooses another effective intervention, or decides on an option based on patient and family preference. In another case, if financial resources prohibit purchase of one highly effective medication for, say arthritis pain, the nurse practitioner may decide prescribe a less expensive medication—or the staff nurse will purchase of one highly effective medication for, say arthritis pain, the nurse

How can you get started? Look around you for patient care problems, or other situations where care needs improvement. Talk about it with your colleagues and then find someone who can facilitate the EBN process, perhaps the unit nurse manager, or the hospital research nurse, or a clinical nurse specialist. A nurse educator from a local college may be also able to help. Some great resources on EBN methods are available in print and on line. A few of the best are listed in the accompanying table.

We all need to incorporate EBN into our practice. Agencies that employ nurses must support this initiative to improve health care quality. Appropriate use of EBN requires documentation of the rationale for patient interventions and evaluation of care outcomes. Use of outcome data to adapt nursing interventions leads to further improvement of outcomes. Documentation of improvements in patient outcomes, demonstrates the effectiveness of nursing interventions in an increasingly cost-driven healthcare system.

New Jersey, with its excellent healthcare facilities and nursing education programs, has the potential to become a leader in EBN. To support this, I invite nurses who practice, teach or study EBN to submit articles highlighting practice-related research or EBN methodology, for publication in Research Corner. Author guidelines are available on the NJDNA website or email ideas and questions to me at lindberge@tcnj.edu

REFERENCES

RESOURCES FOR EVIDENCE-BASED NURSING PRACTICE
BOOKS

JOURNALS
Evidence-Based Nursing. This journal presents summaries of key research findings. The “EBN notebook” and “EBN Users’ Guide,” present discussions of issues related to the practice of EBN, including articles on evaluating research studies. To learn about EBN, start with the oldest issues and read these columns. Subscriptions are expensive but issues up to the current year can be read or downloaded from the journal website: http://ebn.bmjournals.com/

Worldviews on Evidence-Based Practice. This new journal, sponsored by Sigma Theta Tau, presents articles on EBN along with syntheses and reviews of research findings. There is a digest section that presents summaries of new research articles.

WEBSITE TUTORIALS
Mt Sinai Medical Center and University HealthSystem. Center for Evidence-Based Medicine. http://www.ebm.nyu.edu/

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