

THINK Again

Evidence-Based Practice: Then and Now

Why do we do what we do? What should change? AJN's new department explores the questions.

In 1977 about 220 million people were living in the United States¹; those who were fans of Debby Boone's number-one hit single, "You Light Up My Life," likely bought it on vinyl. That year I transferred from a telemetry unit to an ICU in order to pursue my interest in caring for people recovering from open-heart surgery. At that time, the standard of practice for such patients was that

1. pain medications were given as needed.
2. patients remained intubated overnight.
3. family visits were restricted to two family members (and only family members) at a time for five minutes every hour.
4. patients remained on complete bed rest until the second day after surgery.
5. only patients with diabetes had their blood glucose levels monitored and controlled.
6. normal saline was instilled before endotracheal suctioning was performed.

Fast-forward to 2008: the U.S. population has surpassed 300 million and is still growing²; fans of the latest hit single, "Whatever You Like" by the rapper T. I., can download it to an MP3 player. Although cardiovascular intensive care remains my specialty, many things about that standard of practice have changed. For example,

1. pain medication is scheduled, with dosages based on the patient's pain rating.³⁻⁵

2. endotracheal tubes are removed by nurses or respiratory therapists when the patients are physiologically ready.⁶
3. family members and significant others have unrestricted visitation rights.⁷⁻⁹
4. after open-heart surgery, patients sit up on the edge of the bed on the evening or night of surgery.¹⁰
5. whether they have diabetes or not, all open-heart surgery patients' blood glucose levels are maintained at between 80 and 110 mg/dL.^{11,12}
6. saline is no longer routinely instilled before endotracheal suctioning.¹³

And standards continue to change at facilities nationwide as more and more clinicians embrace evidence-based practice.

There are many definitions of evidence-based practice in nursing; I like the one used by the nursing society Sigma Theta Tau International: "integration of the best evidence available, nursing expertise, and the values and preferences of the individuals, families, and communities who are served."¹⁴ It's comprehensive and holistic, includes both patient and family preferences, and can be applied in real-world situations. For example, consider the care of open-heart surgery patients. Normally, when hemoglobin levels drop significantly in a postoperative heart patient, the physician or advanced practice nurse will order a transfusion of packed red blood cells. But

transfusion goes against some patients' faiths; in such cases, erythropoietin (a hormone that stimulates production of red blood cells) might be given instead. Because the intervention both treats the condition and accommodates the patient's wishes, it constitutes evidence-based practice.

There are models of evidence-based nursing practice in current use, including the Stetler Model and the Iowa Model of Evidence-Based Practice.^{15,16} Steps common to all such models include identification of the clinical problem or issue; critical review of the literature, which should include examining and taking into account levels of evidence (various systems that classify evidence according to its quality might be used); interdisciplinary implementation of the practice change; and data analysis to evaluate the effects of the practice change. This last step is essential—and often skipped. For example, my facility recently implemented a policy of tight glycemic control of all patients undergoing open heart surgery. As a result, significantly more nursing time is being devoted to managing blood glucose levels. Data on our patients' outcomes need to be collected and analyzed if this practice change is to be supported.

It's difficult to quantify health care information. One 1976 study estimated that "one million facts [formed] the core body

of information in general internal medicine,” with twice that for the field’s subspecialties.¹⁷ The authors also noted that the number of biomedical journals was doubling every 19 years. However quantified, the amount of available medical and nursing information today is undoubtedly much greater and continues to grow rapidly. It’s also been said that it takes 10 to 15 years for significant research findings to be implemented into practice.¹⁸ We need to find ways to get such information into practicing clinicians in the best, most timely manner, so that no patient has to wait a decade or longer for the best evidence-based care.

Think Again, which will appear periodically, will feature articles that take a close look at the evidence behind traditional

practices that nurses may be reluctant to change. In so doing it will consider nursing practice from clinicians’ experience in a wide range of settings, and it will ask questions, including, What is the evidence for a given practice, and how good is it? How can we best implement new evidence in practice? I look forward to exploring the evidence with you. ▼

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