Overcoming Barriers to Implementing Evidence-Based Practice

A Collaboration Between Academics and Practice

Pamela Rickbeil, MS, RN, ACNS-BC  Joyce Simones, MS, EdD, RN

This article describes two collaborative paired student–preceptor efforts. One project resulted in the implementation of a hospital-wide oral care protocol, and the second enhanced the admission assessment process for adult patients at risk for respiratory compromise after sedation and/or receipt of narcotic analgesia. Recommendations for staff development are addressed.

The benefits of implementing evidence-based practice (EBP) are numerous. Increases in patient safety, reduction in variations of care, and increases in positive patient outcomes have all been reported as positive outcomes of EBP (Fink, Thompson, & Bonnes, 2005; Leasure, Stirlen, & Thompson, 2008; Nay, 2003). The literature reveals that implementing EBP has proven to decrease the length of time between discovery of effective interventions through clinical research and the application of these discoveries at the bedside (Coggan, Greiner, & Erickson, 2003). The excitement that accompanies both sound decision making and confidence gained by applying “best practice” by nursing colleagues has strengthened the level of professional nursing practice (Gennaro, Hodnett, & Kearney, 2001). The literature also shows that implementation of EBP is hard work and requires more than desire and excitement. Successful implementation of EBP requires commitment by practitioners and support from administrators and nurse educators.

Evidence-based practice has been described as “the integration of best evidence with clinical experience and patient values” (Sackett, Strauss, Richardson, Rosenberg, & Haynes, 2001, p. 1). Best evidence is not limited to clinical and experimental research studies but also includes expert opinion and clinical expertise. Each patient brings a different perspective and value system, which must be included in the healthcare decision-making process (Pape, 2003). The literature demonstrates that despite best intentions, successful implementation of EBP is doomed to fail unless the organizational culture is prepared to change through strengthening facilitators and reducing barriers.

Facilitators are identified as factors that support and encourage the development and implementation of EBP (Parahoo & McCaughan, 2001). Significant facilitators have been identified as manager support, time, guidance, and institutional support of nurse educators. Barriers are identified as obstacles that discourage the development and implementation of EBP. Barriers to successful implementation of EBP (Parahoo, 2000) most commonly cited by nurses include lack of time, lack of interest in nursing staff, lack of knowledge of the EBP process and change theory, and lack of support from others. Many nurses indicate that they do not understand the research process and are incapable of evaluating the quality of research and statistical analyses. Nurses believe that they lack the necessary skills and authority to change patient care procedures within the institution. Another barrier is the perception that the work culture is unwelcoming to new ideas and suggestions (Pravikoff, Tanner, & Pierce, 2005).

Research has provided recommendations to enhance facilitators and diminish barriers. Recent recommendations that enhance EBP efforts include enhancing staff nurse skill in critically analyzing research studies, building practice policies and procedures that cite EBP references, and developing staff nurse expertise in using computers, databases, and search engines. These are all responsibilities and talents of the staff development specialist (Gerrish & Clayton, 2004; Krugman, 2003).

The staff development specialist is often identified to initiate and lead EBP and research utilization projects within a hospital setting; this role is instrumental to the success of dissemination of EBP throughout the organization. Omery and Williams (1999) reported “unless...
nursing leadership believes in research utilization and promotes a culture that supports its activities, research utilization fails to become a lived value” (p. 55). Paramonczyk (2005) argued that “the responsibility to develop strategies designed to encourage and facilitate nurses’ participation in research-related activities rested with the organization” (p. 12). The staff development specialist needs to be the “champion” in the organization.

Research studies have shown that the most frequent barrier of EBP implementation has been lack of organizational support and that organizations have the responsibility to develop strategies to promote EBP (Funk, Champagne, Wiese, & Tornquist, 1991a, 1991b). Funk et al. (1991b) recommended strategies to confront these barriers, which include empowering role models and establishing collegial relationships (formal or informal) with university faculty. Specific responsibilities of the staff development specialist would include (a) coordination of administrative details such as arranging meetings and providing copies of materials, (b) identifying practice concerns, (c) providing access to resources such as the Cochrane Library, (d) collaborating with research experts in the agency, and (e) motivating staff to participate in this relationship (Quinlan, 2006).

Stone and Rowles (2007) reported that when nursing students provided education to staff nurses on research pertinent to frequently occurring patient concerns, staff nurses became engaged in that research and related topics. A benefit frequently cited by staff nurse preceptors was the positive educational impact the students had on them. This collaboration resulted in policies and procedure changes to reflect current evidence-based findings. Students in this study also gained valuable experience in real-life patient care and unit challenges.

Schoenfelder (2007) stated that when students in a gerontologic nursing experience were paired with registered nurse preceptors, both nurses and nursing students benefited. The students were required to create “tip sheets” based on the current evidence of identified patient care problems. These tip sheets were then distributed to areas where the students worked with preceptors. Frequently, students used evidence-based protocols developed by the University of Iowa Gerontologic Nursing Interventions Research Center in their tip sheets. By citing the recommended practice change with the source of the EBP guidelines, staff nurses grew in their awareness of EBP and increased their familiarity with EBP tools such as the Gerontologic Nursing Interventions Research Center guidelines.

Leasure, Stiren, and Thompson (2008) reported encouraging outcomes as a result of collaborative efforts between students and staff nurses in the area of expanding EBP efforts to staff nurses. As a final assignment, students bridge research to clinical practice in their view of agency clinical procedures or protocols. The students used research or EBP to either support or refute selected current agency practices. Students then report the findings of their assignment to the staff nurse. It appears that such assignments develop important skills of formulating questions, obtaining evidence, critiquing evidence, and summarizing evidence to make recommendations for practice.

Although this work provides promising evidence of the benefits of student–nurse collaboration, no articles have looked at the effectiveness of large group student projects conducted with staff nurses. Therefore, this article reports the outcomes of two collaborative evidence-based projects by groups of nursing students and groups of staff nurses under the facilitation and guidance of the staff development specialist.

A collaborative EBP project was formed with two academic nursing programs and a hospital. The director of the intensive care unit (ICU) reported a safety alert related to oral care in the critically ill population (American Association of Critical-Care Nurses, 2007). The practice alert recommended development and implementation of a comprehensive oral hygiene program for patients in critical care and acute care settings. The practice alert advised that an ICU program include specifics on the development of an oral care protocol.

It was hypothesized that perhaps other patient populations would also benefit by implementation of a similar oral care protocol. Members of the research committee, which included nursing directors, staff development specialists, and faculty from two baccalaureate nursing programs, suggested conducting a literature review and beginning an EBP project to provide a rich leadership experience for senior nursing students. It was proposed that nursing students from the two schools work together to complete the project, including researching current best practices regarding oral care, collecting information regarding the current practice of oral care from nursing personnel, and then providing education on best practices of oral care to nursing personnel throughout the hospital.

The director of the ICU was established as the point person for the technical aspects of this project. Nursing faculty from the research committee were the contacts for the two nursing programs. The staff development specialist coordinated the administrative details because she had previous experience as the liaison between the hospital and the nursing programs. Meetings were planned throughout the semester for all 20 student participants. Students from both nursing programs were divided into subcommittees, which included literature review (both for pediatric and adult populations), survey construction, development of education resources including PowerPoint and posters, and hospital policy development.
Students found specific evidence-based literature related to benefits of oral care for both adults and pediatric patients in nearly all patient care areas of the hospital. A survey was constructed based on the specific needs of the hospital (e.g., which level of staff provided oral hygiene most frequently, use of hospital supplies, and current oral care practices). A random sample of eight registered nurses, eight licensed practical nurses, and eight nursing assistants completed the survey. Staff development specialists assisted in the distribution and collection of the surveys. The completed surveys revealed that although effective oral care was completed consistently throughout the hospital, there was need for new products (e.g., softer toothbrushes). Students who were involved in the development of educational resources worked with the information technologists and unit staff development specialists in the hospital to develop educational tools. Information was integrated into a new oral care protocol that followed the hospital format. Twice, students presented their findings to the hospital clinical nurse practice committee. At the first meeting, staff nurses provided constructive feedback, and the students then incorporated this information into the next draft of the protocol. At the second meeting, the protocol was approved and added to the hospital’s policy and procedure manuals. The product specialist for the hospital took the lead on refinement of the oral care protocol. Students taught staff nurses and nursing personnel about the new oral care protocol as well as the evidence that supported this practice. New supplies such as denture tablets, denture brushes, and softer toothbrushes were purchased and supplied for patients on the nursing units. Students also developed a computer-based training module on this topic that staff viewed as a component of their annual education.

The next semester, a group of four postbaccalaureate nursing students initiated another project. A patient safety alert regarding patients with sleep apnea who received narcotics and sedation had recently been released (American Society of Anesthesia, 2005). Improving identification of this vulnerable population and reducing potential adverse events for patients with diagnosed sleep apnea were chosen as the EBP project. The staff development specialist was designated as the hospital point person for this EBP project.

The second EBP project began with an investigation of best practices with sleep apnea patients receiving narcotics and/or analgesia. Nursing staff were surveyed about their knowledge of sleep apnea, continuous positive airway pressure, and patient response to sedation and analgesia. Respiratory care staff and staff development specialists were consulted on current practice, asked their opinion on staff nurses’ competence with continuous positive airway pressure, and asked their suggestions for process improvement. After gathering all the evidence, a draft of a policy was developed. Students presented to the Nursing Research Committee the evidence collected, a draft of a potential new policy, and personal experiences with patients they witnessed experiencing breathing difficulties after sedation and analgesia. In addition to Research Committee members, student preceptors from the various units and the infection control nurse attended the student presentation. The policy draft and supplemental evidence-based data were then forwarded to hospital nurse leaders from units with this population. This project resulted in additional questions being added to the Patient Admission Assessment forms. Upon admission, patients are now routinely asked if they use a “breathing machine” at home, which, when answered positively, results in a respiratory care consultation to further assess the patient’s knowledge and skill in managing the equipment. The students provided staff education to both unit staff and those who attended the research committee meeting. Lastly, a poster was created for Nurses Week to highlight this vulnerable population and impart the evidence used to improve patient care.

Many lessons were learned by both clinical and academic staff on these two projects:

- Identify one lead person from both the student group and from the hospital staff to assist in communication and to coordinate efforts. A staff development specialist is in an ideal position to serve in such a role.
- Flexibility is required in expectations from both academics and practice. A poster at the completion of the sleep apnea project was one such expectation. Because the changes had not fully been implemented, development of a poster at the original assigned time would have been premature. Instead, a poster was developed at a later time after implementation of the practice changes.
- As with any joint project, all participants from both the hospital and academic programs must be actively involved.
- The project focus should be realistic for the size of the group of students and time requirements. Faculty need to determine if the scope of the project is appropriate to be completed during the allotted time. The project must also meet the student learning outcomes of the course.
- If more than one school is collaborating on a project, the students from both schools should have the same guidelines and expectations. An example is joint completion dates for all components of the project.
- Networking and collaborative work takes time. Students from both programs did not know each other before the project began; it took time for joint committees to form effective work groups.
- An interdisciplinary group that included physicians, therapists, nurses, and students in this project may have been beneficial.
More detailed statistical analysis than collected on surveys would provide stronger evidence to support practice changes. This article supports the earlier literature that collaboration between academics and practice can successfully overcome barriers to successful implementation of EBP. Student nurses provided expertise in searching the literature and offering an unbiased view of research findings. Hospital staff nurses identified significant problems and knew hospital processes. Staff development specialists provided guidance and institutional support to maintain these changes in practice.

References