The Experience of Implementing Evidence-Based Practice Change: A Qualitative Analysis

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The Oncology Nursing Society (ONS) and ONS Foundation worked together to develop the Institute for Evidence-Based Practice Change (IEBPC) program to facilitate the implementation of evidence-based practice (EBP) change in nursing. This analysis describes the experience of 19 teams of nurses from various healthcare settings who participated in the IEBPC program. Qualitative analysis of verbatim narratives of activities and observations during the process of implementing an EBP project was used to identify key themes in the experience. EBP implementation enabled participants to learn about their own practice and to experience empowerment through the evidence, and it ignited the spirit of inquiry, team work, and multidisciplinary collaboration. Experiences and lessons learned from nurses implementing EBP can be useful to others in planning EBP implementation.

Evidence-based practice (EBP) is regarded by professionals as the basis for nursing practice (Jutel, 2008; Newhouse, Dearholt, Poe, Pugh, & White, 2007). However, gaps and delays in translating evidence into clinical practice are well recognized (Dudley-Brown, 2012; White, 2012), and understanding that these gaps are more about factors that influence the process of EBP implementation than about individual skills for evidence appraisal is important (Fineout-Overholt, Melynky, & Schultz, 2005; Gale & Schaffer, 2009). Development of effective strategies to implement evidence in nursing practice is a dedicated area of exploration (Doorenbos et al., 2008). A need exists to describe and understand the experience of implementing EBP in nursing and to determine more effective facilitation strategies (Friedman et al., 2009).

The Institute for Evidence-Based Practice Change (IEBPC) was developed by the Oncology Nursing Society (ONS) and ONS Foundation to facilitate implementation of EBP in nursing. Teams of nurses were educated in EBP implementation and, as part of program activities and evaluation, IEBPC participants recorded reflective narratives of their experiences. The purpose of this article is to describe the experience of implementing an EBP change through analysis of verbatim narratives. Learning from the experience of others can help other nurses implement EBP.

Methods

The sample consisted of verbatim reflection log entries from 19 teams who participated in the IEBPC in 2009 and 2010. The IEBPC program included a 2.5-day conference involving lectures and group work that provided content for the EBP process, literature searching, and development of an implementation plan, project management, and outcomes measurement. Participant teams consisted of a champion (an advanced practice nurse to lead and advocate for the project), a sponsor (an individual with administrative authority), and a target (staff nurse whose practice was the target of change). Breakout sessions were used to

- How will you use what you have learned to continue to improve and move things forward (if relevant)?
- What have you and your project team learned this month?
- What major actions in your project did your team take this month?
- What responses did you see to these actions?
- As you reflect upon this past month, what things strike you, surprised you, frustrated you, or delighted you?

FIGURE 1. Questions for Reflection

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develop initial implementation plans, facilitate group discussion on change strategies, and identify appropriate outcome measures for each team. The IEBPC mentor group assigned a mentor to participating teams. Mentors were advanced practice nurses who had successfully implemented EBP in nursing practice settings, and they provided individualized, unstructured mentoring for 12 months following the conference via e-mail communication and phone conferences.

As part of the program’s activities for reflective learning and program evaluation, the champion from each team was asked to consider and respond to a series of questions about the experiences of the team (see Figure 1). Reflections were posted on a secure virtual office Web site, creating a written verbatim record for analysis. Participants were informed that log entries were voluntary; that information would be used by ONS for analysis, program evaluation, and planning; and that individuals and organizations involved would not be identified in any publication of resulting information.

Verbatim postings were downloaded from the site and de-identified to maintain confidentiality. All entries were independently reviewed by two authors using content analysis to identify themes and concepts. An audit trail was maintained by documenting all analysis on verbatim documents. After independent review, the authors compared, organized, and merged themes and concepts until consensus was reached.

Results
Sample Characteristics

The sample consisted of 140 verbatim log entries from 19 IEBPC teams. Eight teams practiced in a comprehensive cancer center, eight in a community hospital, two in an outpatient setting, and one in industry nursing. The number of log entries for each team ranged from 2–13, with a mean of 7.6 per team during a 12-month period. Three entries total were completed by a target nurse; all others were done by team champions. One of the 19 teams withdrew from the program after two months. Participants worked in a variety of practice settings and worked on different aspects of clinical practice. Areas of practice addressed by teams in the EBP projects are shown in Figure 2.

Themes

Analysis demonstrated the following major themes: key implementation actions, critical success factors, difficulties and frustrations, and the process of discovery.

Key implementation actions: Key actions identified by teams included education, marketing, use of recognition and incentives, development of tools for implementation, and obtaining institutional review board (IRB) approval. Corresponding exemplars are shown in Figure 3.

Educational activities included staff education about the project and related evidence, and how to administer assessment tools. Teams also were involved in educating other disciplines or nursing units about the project and presenting to nursing
practice councils and medical staff committees. Marketing efforts were used to gain support and to facilitate involvement and collaboration with others. Several teams incorporated recognition and the use of incentives into project implementation. These strategies aimed to get staff attention and encourage participation in project activities and related changes to patient care.

Teams developed a variety of tools to implement practice change (i.e., assessment forms, decision-making algorithms, documentation templates, communication scripts, signage, care checklists). Almost all of the teams used visual tools, which included a mark on the wall that enabled the nurse to see quickly if the head of the bed was sufficiently elevated, as part of a project to address ventilator-associated pneumonia. One team working to increase patient ambulation obtained a variety of posters from international cities to place on the walls in the hallway so they could encourage patients to “walk to Paris.” One team noted, “The visual cues have helped with our compliance.”

Five teams were required to obtain IRB approval from their organizations before they could begin work on EBP projects. Two of those involved full review, and the others met expedited or exempt review criteria. Some teams expressed frustration with delays associated with getting IRB approval and viewed the process as a barrier, and others identified the process as part of implementation. Teams that did not express frustration in obtaining IRB approval had assistance from nurse researchers. One team noted, “Institutional support seems to be there in the form of an RN who is also a PhD and sits on the IRB—great for us.” Teams that required IRB approval described delays that ranged from 3–6 months.

Critical success factors: Critical success factors were seen to facilitate implementation of the practice change when present and, if absent, were considered barriers to change. Critical success factors expressed in reflective narratives included time, organizational support, engagement and teamwork, communication, planning, and maintaining focus (see Figure 4).

Time was the critical success factor expressed most frequently. Some teams received an appropriate amount of time to work on the EBP project, whereas others experienced a lack of time, which they saw as a barrier.

Support or lack of support was expressed by all teams. Most experienced support from others such as managers, nursing staff, and physicians, but some teams experienced areas where support was lacking. One team initially was unable to get assistance from the organization’s librarian to obtain evidence, and the team was told that the service was not available to nurses. That problem was resolved by the nurse executive. Lack of support was associated with competing priorities within an organization, which prevented providing attention to EBP implementation.

Team reflections also identified the importance of support from mentors in the program. Teams frequently expressed the importance of teamwork and stakeholder engagement. Teamwork and engagement of physicians, nursing staff, and other disciplines were associated with progress in EBP implementation. Conversely, lack of engagement of key groups inhibited progress.

Inadequate communication inhibited progress, and teams noted that good communication was a critical success factor. However, time constraints and competing priorities made communication challenging. As one team noted, “We learned that when our schedule gets busy, our communication among our team members suffers.”

Teams expressed the importance of planning and identified helpful plan characteristics. Taking small steps, clarity and simplicity of actions, and setting deadlines were important components of planning (see Figure 5). Several teams talked about the difficulty of maintaining focus on their projects and the frequent efforts to refocus. Maintaining focus in the work setting was seen as difficult, and loss of focus was associated with lack of progress.

Difficulties and frustrations: Several difficulties and frustrations were expressed, including competing priorities, challenges in data collection and measurement of results, and the impact of staff turnover (see Figure 6). Competing priorities had an effect on the amount of time and attention devoted to the EBP project.
by team members, and conflicts arose from other organizational initiatives that fought for staff attention. Variation in patient care needs also required that work on the EBP project be postponed.

The program requested teams to be involved in data collection and measurement of results to monitor progress. The majority of participants expressed difficulty because of a lack of knowledge, barriers in obtaining data, and a lack of time to collect and analyze data.

Several teams noted the value of data collection and measurement in statements such as, “It is exciting to see the results,” and, “We are able to see clear improvement in CLABSI [central line-associated bloodstream infection] rates.” One team noted that once some results could be observed, those results contributed to a positive experience. They said, “We are delighted that we have an end result of our work. We are also excited to begin the next phase of data collection.”

Team progress was affected by turnover of team members as well as changes in staffing and management in the organization. One team expressed the effects of their chief nurse executive resignation by stating, “I am surprised, when there is an underlying culture of anxiety and of the unknown, how immobilizing it can be. The uncertainty of survival literally pushes patient care initiatives and things that are important to the background! . . . It has been a bit of a black hole as far as support for our project.”

**Discovery:** Areas of discovery expressed in narratives included learning about their practices, learning about each other, igniting the spirit of inquiry, experiencing empowerment through evidence, and learning about the challenge of sustaining improvement. Exemplars in these subthemes are shown in Figure 7. Participants expressed experiences that were instructive, affirming, and inspiring in the process of implementing EBP change.

**Discussion**

This analysis provides a description of the experience of nurses implementing different EBP change projects in a variety of settings. Description comes from verbatim narratives of nurses directly involved in the effort. Implementation activities reflected common strategies for EBP change (e.g., education, communication, use of reminders, engagement of stakeholders). Education was identified as a common activity for knowledge translation, and use of reminders was identified as a successful strategy in EBP implementation (Shojania & Grimshaw, 2005; Sudsawad, 2007; Titler, 2008). Nurses who participated in the IEPC program demonstrated creativity in the development and use of visual tools in implementing new procedures. Many of these visual tools also functioned as reminders.

Requirements for IRB approval were not consistent across organizations. Projects of two teams involved direct sampling and assignment of patients to test interventions. These projects clearly met recognized definitions of research requiring IRB approval (Cepero, 2011). Other submissions only involved the application of known available evidence to change nursing procedures or policies. IRB processes substantially contributed to delays. Quality care demands that nurses use EBP, but organizations demand approval to do so. Most EBP can be viewed as part of normal clinical activity and could be appropriately reviewed by usual clinical management processes, the same way as policies and procedures (Melnyk & Fineout-Overholt, 2011). This area causes some controversy, and broad discussion and clarification would be beneficial.

Many of the critical success factors in this article have been identified by others (e.g., time, support, communication, planning). Time constraints have been described as significant barriers to EBP in nursing and to sustaining practice improvements (Chin et al., 2008; Cooke et al., 2004; Edvardsson et al., 2011; Smith & Donze, 2010; Wolfson et al., 2009). In the current analysis, some participants were given time dedicated only to EBP.
projects, but others were not. The issue of time as a necessary resource for EBP implementation needs to be addressed if nurses are to achieve the goal of providing evidence-based patient care.

Helpful characteristics for creating a plan (e.g., setting deadlines, taking small steps) have not been regularly identified in studies of EBP, but they are common to quality improvement (QI) methods and are part of general project management concepts (Terhaar, 2012). Collaboration among QI practitioners, managers, and clinicians can provide approaches to facilitate EBP by combining the expertise of these groups.

Findings regarding the value of support and good communication are in concert with findings of others who have described successful strategies for EBP and guideline implementa-
tion (Terhaar, 2012). The nature of critical supports (e.g., time) points to the role of managers and administrators in facilitating EBP in nursing. Participant narratives in the current analysis support the value of mentoring described by others (Fineout-Overholt & Melnyk, 2011; Mick, 2011).

The need to actively maintain focus and refocus efforts in EBP implementation has not been previously described. Not surprisingly, maintaining attention to a specific new initiative in a setting of competing priorities can be difficult. Purposeful incorporation of strategies and methods to maintain focus may facilitate EBP implementation.

The importance of teamwork and collaboration in implementing change and maintaining high-performing organizations has been described in previous studies (Nelson, Batalden, & Godfrey, 2007; Wolfson et al., 2009). Findings in the current analysis suggest that the process of implementing an EBP change also can be a vehicle for team building and collaboration. Participant comments demonstrated staff and interdisciplinary engagement in the project, and the process provided opportunities for new interactions within teams and among stakeholders.

In contrast to challenges, frustrations, and barriers to EBP typically identified in the process of implementing EBP, experiences here also were uplifting and empowered the nurses. These findings suggest that EBP focus in the nursing profession not only improves patient care, but also can inspire and energize nurses.

Limitations

Limitations stem from the characteristics of the sample and the nature of qualitative methods. The reflections were from participants in the IEBPC program. The program provided education and attention to specific aspects of EBP implementation (e.g., planning, measuring results). This likely influenced participant attention to those areas in the reflections, although not the specific experience described. It also can be assumed that participants in the program already had interest and some personal and organizational commitment to EBP. This limitation is mitigated by the fact that many concepts and themes described here are mentioned in other studies.

Qualitative analysis, used in the current analysis, requires classification of the raw data by the reviewers. Different individuals using the same data may arrive at different classification of themes and concepts. Analysis also involved the distillation of a wealth of written data to a relatively small set of themes and observations that cannot describe the full complexity of EBP implementation.

The fact that findings are derived from a variety of different settings and from EBP projects involving diverse aspects of patient care is a strength of this analysis. Because the themes are derived from various situations, they may be relevant in a range of situations. Data also were obtained at the time individuals were involved in their EBP implementation projects, providing reflection on the experience as it occurred. To the authors' knowledge, the current analysis is the first to record the experience of EBP implementation as it happened.

Conclusions

Nurses routinely do not implement evidence in practice, and translating evidence into clinical practice is a challenging process
Implications for Practice

- Incorporate knowledge of critical success factors identified in this article to plan effective evidence-based practice (EBP) implementation.
- Implement an EBP project for purposeful team building and interdisciplinary collaboration.
- Create a plan that includes small steps, clear actions, and deadlines.

References


