



Creating a Supportive EBP Environment

Why be concerned about creating a supportive environment for evidence-based practice (EBP)? The most obvious answer is that new evidence is continually surfacing in nursing and medical environments. Practitioners must incorporate the tremendous increase in the generation of new knowledge into their daily routines for their practices to be evidence-based, yet there is a well-documented delay in implementing new knowledge into practice environments. The Agency for Healthcare Research and Quality (AHRQ; Clancy & Cronin, 2005) cited 17 years as the average time from generation of new evidence to implementation of that evidence into practice. Additionally, for healthcare professionals to keep up with journals relevant to practice, every practitioner would need to read 17 articles per day, 365 days per year (Balas & Boren, 2000).

The dynamic and competitive U.S. healthcare environment requires healthcare practitioners who are accountable to provide efficient and effective care. This environment also mandates continuous improvement in care processes and outcomes. Healthcare, provided within the

structure of a system or an organization, can either facilitate or inhibit the uptake of evidence. EBP requires the creation of an environment that fosters lifelong learning to increase the use of evidence in practice.

Because of the emphasis on quality and safety, many healthcare organizations have created strategic initiatives for EBP. Current national pay-for-performance initiatives, both voluntary and mandatory, provide reimbursement to hospitals and practitioners for implementing healthcare practices supported with evidence. Consumer pressure and increased patient expectations place an even greater emphasis on this need for true EBP. However, McGlynn et al. (2003), in an often-cited study, reported that Americans receive only about 50% of the healthcare recommended by evidence. Therefore, even with an increased emphasis on EBP, the majority of hospitals and practitioners are not implementing the available evidence and guidelines for care in their practices. This suggests an even greater imperative to build infrastructure that not only supports EBP but also infuses it into practice environments.

Three Institute of Medicine (IOM) reports have called for healthcare professionals to focus on EBP. In 2001, *Crossing the Quality Chasm: A New Health System for the 21st Century* called for the healthcare system to adopt six aims for improvement and ten principles for redesign: “The nation’s healthcare delivery system has fallen far short in its ability to translate knowledge into practice and to apply new technology safely and appropriately” (p. 3). The report also recommended that healthcare decision-making be evidence-based, to ensure that patients receive care based on the best scientific evidence available and that this evidence is transparent to patients and their families to assist them in making informed decisions. The second report, *Health Professions Education: A Bridge to Quality* (2003), described five key competencies for health professionals: delivering patient-centered care, working as part of interprofessional teams, focusing on quality improvement, using information technology, and practicing evidence-based medicine. The third IOM report, *The Future of Nursing: Leading Change, Advancing Health* (2011), focused on the need to expand opportunities for nurses to collaborate with physicians and other healthcare team members to conduct research and to redesign and improve both practice environments and health systems to deliver quality

healthcare. For this to happen, the report urges schools of nursing to ensure that nurses achieve competency in leadership, health policy, systems improvement, teamwork and collaboration, and research and EBP.

The American Nurses Association (ANA) revised *Nursing: Scope and Standards for Practice* in 2010, making a substantive change to the “Research” standard by renaming it “Evidence-Based Practice and Research.” The new standard of professional performance requires that the “registered nurse integrates evidence and research findings into practice” (p. 51). The competencies are quite specific and hold registered nurses accountable to:

- Utilize current evidence-based nursing knowledge, including research findings, to guide practice
- Incorporate evidence when initiating changes in nursing practice
- Participate, as appropriate to education level and position, in the formulation of EBP through research
- Share personal or third-party research findings with colleagues and peers (ANA, 2010).

Other substantive changes throughout the standards emphasize the imperative for evidence in nursing practice and create a significantly stronger role for nurses to promote an EBP environment and advocate for resources to support research (ANA, 2010).

A new type of healthcare worker exists now—one educated to think critically and not to simply accept the status quo. Nurses from Generation Y, whose members are known as *millennials*, and Generation Z (<http://www.socialmarketing.org>) question current nursing practices, and “We’ve always done it that way” is no longer an acceptable response. They want evidence that what they are doing in the workplace is efficient and effective. These nurses are pushing the profession away from practice based on tradition and past practices that are unsupported by evidence. This push requires that evidence support all clinical, educational, and administrative decision-making.

This compelling need for EBP in the healthcare environment requires proper planning, development, and commitment. This chapter:

- Explains how to choose an EBP model for use in the organization
- Explores how to create and facilitate a supportive EBP environment
- Describes how to overcome common implementation barriers
- Discusses how to sustain the change

Choosing an EBP Model

It is critically important to establish a standardized approach to EBP inquiry in the organization. The establishment of a standardized approach, choosing a model, assures the team that appropriate methods have been used to search, critique, and synthesize evidence when considering a change in practice. Using a standardized approach is needed to implement best practices both clinically and administratively; identify and improve cost components of care; foster outcomes improvement; and ensure success of the EBP initiative.

Any EBP model or framework being reviewed for adoption should be carefully evaluated for the following:

- Fit and feasibility of the model with the vision, mission, philosophy, and values of the organization and the department of nursing
- Educational background, leadership, experience, and practice needs of the nursing staff
- Presence of any partnerships for the EBP initiative, such as a school of nursing or collaboration with other professions, such as medicine, pharmacy, and nutrition
- Culture and environment of the organization
- Availability and access to sources of evidence internal or external to the organization

The leadership team should appoint a group to champion the EBP process and review models using the characteristics in this list and other agreed-on criteria. Criteria for model review may include identifying strengths and weaknesses, evaluating assumptions, verifying ease of use, ensuring applicability for all clinical situations, reviewing examples of use and dissemination, and securing recommendations of other users.

Creating and Facilitating a Supportive EBP Environment

To move the EBP initiative forward, the organization's leadership must ensure that the appropriate infrastructure is available and supported. This organizational infrastructure consists of human and material resources and a receptive culture. Key assumptions regarding evidence-based nursing practice include these:

- Nursing is both a science and an applied profession.
- Knowledge is important to professional practice, and there are limits to knowledge that must be identified.
- Not all evidence is created equal, and there is a need to use the best available evidence.
- EBP contributes to improved outcomes (Newhouse, 2007).

Successful infusion of EBP throughout the organization must focus on three key strategies: *establish the culture*, *build capacity*, and *ensure sustainability*.

Establishing the Organizational Culture

Establishing a culture of practice based on evidence is a leadership-driven change that fundamentally challenges commonly held beliefs about the practice of nursing. This transformational change in culture typically occurs over a period of three to five years. During this time, EBP is embedded into the values, norms, and structure of the department of nursing and caregiving units through a planned and systematic approach.

Schein (2004) defines organizational culture as “patterns of shared basic assumptions that were learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough...to be taught to new members as the correct way to perceive, think, and feel in relationship to these problems” (p. 17).

Thus, culture—a potent force operating below the surface—guides, constrains, and/or stabilizes the behavior of group members through shared group norms (Schein, 2004). Although organizations develop distinct cultures, subcultures also operate at the unit or team level and create a context for practice. Embedding a culture based on practice requires that nurse leaders at all levels explicitly challenge tradition, set expectations, model the use of evidence as the basis for decisions, and hold all levels of staff accountable for these behaviors.

The visible and tangible work of establishing a culture supportive of EBP requires revisiting the philosophy of nursing, developing a strategic plan, ensuring that leaders are committed, identifying and exploiting the use of mentors and informal leaders, and overcoming barriers.

Reviewing the Nursing Philosophy

A tangible way to signal a change to a culture of EBP and lay the foundation for leadership commitment is to review and revise the philosophy of the department of nursing. This statement should include three key points. The philosophy should do the following:

- Speak to the spirit of inquiry and the lifelong learning necessary for EBP
- Address a work environment that demands and supports the nurses’ accountability for practice and decision-making
- Include the goal of improving patient care outcomes through evidence-based clinical and administrative decision-making

See Table 9.1 for an example of the philosophy statement from The Johns Hopkins Hospital (JHH) department of nursing. At JHH, the vice president of nursing and the directors wanted to ensure that the revisions in the philosophy resonated with and had meaning for the staff. After revising the document, they hosted an open forum with staff selected from all levels in the nursing department to provide input and feedback on the philosophy. This process highlighted the importance of this change, communicating leader commitment to EBP and to the part that staff would have in this change and transition.

Developing a Strategic Plan

Supportive and committed executive-level leadership, including the chief nurse executive (CNE), must be involved in the creation and development of an EBP environment. To operationalize the philosophy statement and build capacity for implementation of EBP, the organization's leaders must develop a strategic plan to identify goals and objectives, time frames, responsibilities, and an evaluation process. The plan also requires a commitment to allocate adequate resources to the EBP initiative, including people, time, money, education, and mentoring. As a strategic goal, EBP should be implemented at all levels of the organization. As the initiative rolls out, leaders need to check the pulse of the organization and be prepared to modify the strategy as necessary. To enable the process, they should identify potential barriers to implementation, have a plan to reduce or remove them, and support the project directors and change champions in every way possible. Figure 9.1 outlines the essential elements of a strategic plan for initial implementation of EBP. As EBP develops over time, the content of the strategic plan should reflect the maturation of the program.

The support and visibility of the CNE are paramount. The staff must see the CNE as a leader with a goal of infusing, building, and sustaining an EBP environment.

Table 9.1 Philosophy of The Johns Hopkins Hospital Department of Nursing

At The Johns Hopkins Hospital, we integrate the science of nursing, clinical knowledge, nursing judgment, and passionate commitment to quality care with the art of nursing, honoring patients' trust that they will be cared for with integrity and compassion.

In our practice...

- we are experts in the specialized treatment of illnesses;
- we pursue quality outcomes, advocating in the best interest of our patients;
- we embrace the responsibility of autonomous practice and commit to a collaborative approach to patient care;
- we seek, appraise, and incorporate the best evidence to support our practice;
- we master the application of healthcare technology;
- we pursue excellence, creativity, and innovation.

On behalf of patients and families...

- we pledge compassionate care throughout a patient's illness to recovery, discharge, or end of life;
- we use our skills to diagnose health concerns, intervene promptly, and monitor efficacy of treatment;
- we position ourselves as sentinels of safety and advocates for quality care;
- we honor individual uniqueness, embrace diversity, treat holistically.

As professionals...

- we bring intellectual rigor, ethical conduct, and emotional competence to our practice;
- we cultivate personal leadership and professional growth;
- we take the lead in our organization to improve patient care;
- we celebrate the talents of nurse colleagues, valuing positive relationships, shared governance, and mutual accountability;
- we advance our profession, locally, nationally, and internationally;
- we respect the diversity of persons, of disciplines, and of communities with whom we interact.

We treasure our heritage, celebrate our present, and engage the future.

We stand in the forefront of healthcare and nursing practice.

We stand for patients.

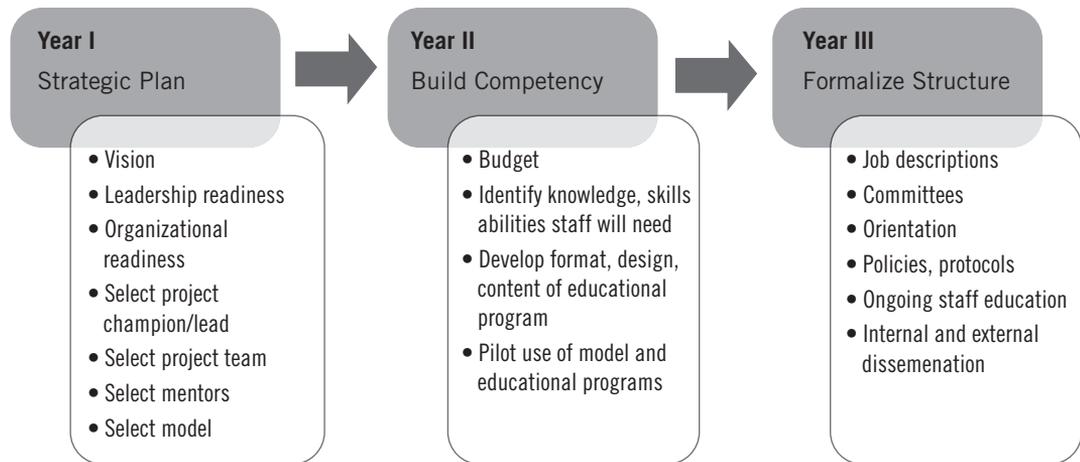


Figure 9.1 Elements of a strategic plan.

The organization's leadership can support EBP efforts best by modeling the practice and ensuring that all administrative decision-making is evidence-based. For example, if the organization's leaders ask middle managers for evidence (both organizational data and the best available research and nonresearch evidence) to support important decisions in their areas of responsibility, it is more likely that staff at all levels will also question and require evidence for their practice decisions. Additionally, all organizational and department of nursing clinical and administrative standards (policies, protocols, and procedures) need to be evidence-based and have source citations on the standards if a need to retrieve the reference arises. For example, at JHH, the infection control department implemented a policy regarding the use of artificial fingernails. Because nurse managers (NMs) were challenged with how to hold staff accountable for this change in policy, nursing leaders convened a group of NMs to conduct an EBP project on this topic. As a result, NMs were then armed with the best evidence on the risks associated with use of artificial nails and had direct experience with the EBP process and how it can strengthen administrative practice. With such leadership examples and activities, verbal and nonverbal EBP language becomes assimilated into everyday activities and establishes an evidence-based culture.

Finally, the CNE can further model support for EBP by participating in EBP change activities. For example, if the plan is to offer EBP education to the management group, the CNE can attend and introduce the session by discussing the organization's vision of EBP. The CNE's presence demonstrates the leadership's commitment to EBP and its value to the organization. Participating gives the CNE an appreciation for the process, including the time and resource commitment necessary for the organization to move toward an EBP.

Ensuring Committed Organizational Leadership

When leaders are actively involved and frequently consulted, the success of implementation, sustainability, and a stable infrastructure are more likely. When leaders are not engaged, the change-and-transition process is more reactive than proactive, and the infrastructure and sustainability over time is less certain. Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou (2004) describe three styles for managing change and adopting an innovation such as EBP:

- Leaders “let it happen” by communicating a passive style where, for example, small pockets of staff may self-organize to explore and create their own process for engaging in EBP.
- Leaders “help it happen” when a formal group such as advanced practice nurses, acting as change champions, have invested in and defined an approach to EBP and have to negotiate for support and resources to implement it. Still, the leader is being pulled into the process by change rather than leading it.
- The “make it happen” approach is intentional, systematic, planned, and fully engages all nurse leaders in the process to ensure adoption, spread, and sustainability.

Identifying and Developing Mentors and Informal Leaders

Mentors and change champions have an important role in assimilation of EBP into the organizational culture. They provide a safe and supportive environment for staff to move out of their comfort zone as they learn new skills and

competencies. Informal leaders influence the staff at the unit or departmental level. The presence and influence of both roles is a key attribute for sustainability and building capacity within staff. Because EBP is a leadership-driven change, leaders should identify and involve both formal and informal leaders early and often in creating the change and transition strategies so that they can serve as advocates rather than opponents for the change and model its use in practice.

Leadership must identify and select nurse mentors with care, choosing them from across the organization—different roles, levels, and specialties. Consider who within the organization has the knowledge and skills to move an EBP initiative forward, can offer the best support, and has the most at stake to see that EBP is successful. Building the skills and knowledge of mentors should take into account such questions as, “How will the mentors be trained? Who will provide the initial training? How and by whom will they be supported after their training is complete?” As the activities to build an EBP environment increase, the leadership needs to diffuse education and mentoring activities throughout the nursing staff. The key to success is to increase buy-in by involving as many staff as possible to champion the EBP process by focusing on a problem that is important to them.

You can develop mentors in many ways. Initially, if the organization has not yet developed experts within their staff, it can find mentors through collaborative opportunities outside of the organization such as partnerships with schools of nursing or consultation with organizations and experts who have developed models. After internal expertise is established, the implementation of EBP throughout the organization results in a self-generating mechanism for developing mentors. For example, members of committees who participate in EBP projects guided by a mentor quickly become mentors to other staff, committees, or groups who are engaged in EBP work. EBP fellowships are another way to develop mentors where the fellow gains skills to lead and consult with staff groups within their home department or throughout the organization.

Evidence indicates that nurses, when facing a clinical concern, prefer asking a colleague rather than searching a journal, book, or the Internet for the answer. Colleagues sought out are often informal leaders, and evidence indicates that these informal leaders—opinion leaders and change champions—are effective in

changing behaviors of teams if used in combination with education and performance feedback (Titler, 2008). Formal leaders differ from informal leaders in that formal leaders have position power, whereas informal leaders' power is derived from their status, expertise, and opinions within a group.

Opinion leaders are the go-to persons with a wide sphere of influence whom peers would send to represent them, and they are “viewed as a respected source of influence, considered by [peers] as technically competent, and trusted to judge the fit between the innovation [EBP] and the local [unit] situation. ...[O]pinion leaders' use of the innovation [EBP] influences peers and alters group norms” (Titler, 2008, pp. 1–118). Change champions have a similar impact, but they differ in that, although they practice on the unit, they are not part of the unit staff. They circulate information, encourage peers to adopt the innovation, orient staff to innovations, and are persistent and passionate about the innovation (Titler, 2008).

The identification of champions can occur at two levels. The first is at the organizational level. At JHH, nursing leaders have successfully used clinical leadership roles such as clinical nurse specialists, wound care specialists, or safety nurse specialists as change champions. The second group of champions is at the departmental level and includes departmental nursing committee members who are expert clinicians whom the staff see as role models for professional practice and who can hold staff accountable. They are nurses committed to clinical inquiry and, many times, are initially identified because of their interest in the topic or issue for an EBP project or because they are skillful collaborators and team players.

The critical role of mentor and informal leaders in facilitating EBP and translating the evidence into practice has been the focus of significant work (Dearholt, White, Newhouse, Pugh, & Poe, 2008; Titler, 2008). The nursing literature supports that mentoring and facilitation are needed throughout the EBP process to help nurses be successful and to promote excellence (Block, Claffey, Korow, & McCaffrey, 2005; Carroll, 2004; Owens & Patton, 2003).

The Johns Hopkins Nursing Experience

After the JHNEBP Model was developed and ready for testing, the first group to receive education and training was the post-anesthesia care unit (PACU) staff. They were chosen for three reasons: The nurse manager was committed to EBP, the PACU had a well-established professional practice with expectations of staff nurse involvement in unit activities, and nurses had two hours of protected time scheduled each week, which could be used for the training. The PACU staff proposed to examine a priority administrative and clinical practice issue related to cost, volume, satisfaction, and throughput. The question generated by the staff was, “Should ambulatory adults void before being discharged from the PACU?”

The EBP process began with education classes held in short weekly or biweekly sessions. Each week, the PACU staff was asked to evaluate the education, the model, and their satisfaction with the process. They were asked the following questions:

- Is the model clear, usable, adequate, and feasible?
- Is the staff satisfied with the evidence-based process?
- Is the staff satisfied with the outcome of the process?

The results demonstrated significant differences across time in the nurses’ perceptions of the adequacy of the EBP resources, the feasibility of the process, and their satisfaction with the process and outcome. Figure 9.2 describes the mean changes in evaluation responses across time. After the initial training, nurses began the process with positive perceptions; these dropped significantly in all three areas when they began to use the model to search and evaluate evidence independently. At the end of five education sessions, the nurses’ perceptions of the adequacy of EBP resources, the feasibility of the process, and their satisfaction with the process and outcome returned to levels higher than their initial ratings.

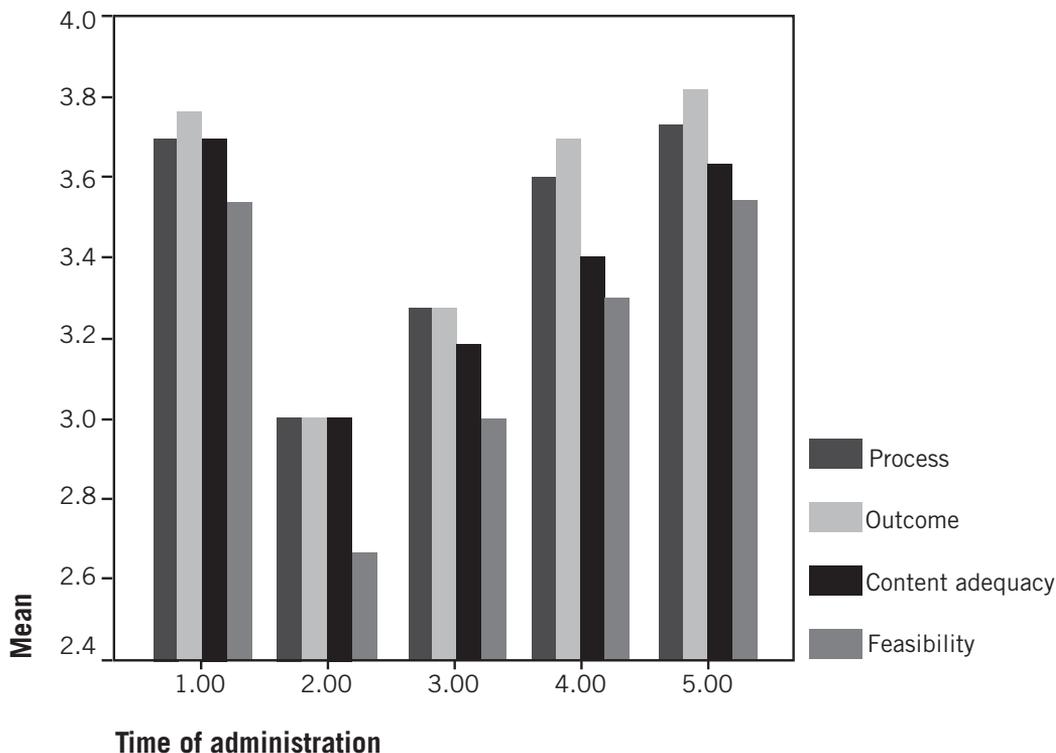


Figure 9.2 Nurse evaluation of pilot implementation of the JHNEBP Model.

These results support the need for mentorship during the EBP process as nurses learn new skills, including the research- and evidence-appraisal work (Newhouse, Dearholt, Poe, Pugh, & White, 2005). At the end of the pilot, the EBP leadership team concluded that staff nurses can effectively use the JHNEBP Model with the help of knowledgeable mentors and that implementation of a practical EBP model is necessary to translate research into practice. The evaluation also included qualitative responses that showed enthusiasm for the EBP process and a renewed sense of professionalism and accomplishment among the nurses. Indicators of success of an environment supportive of nursing inquiry included the following conditions:

- Staff has access to nursing reference books and the Internet on the patient care unit.

- Journals are available in hard copy or online.
- A medical and nursing library is available.
- Knowledgeable library personnel are available to support staff and assist with evidence searches.
- Other resources for inquiry and EBP are available.

Estabrooks (1998) surveyed staff nurses about their use of various sources of knowledge. She found that the sources used most often by nurses were their own experience, other workplace sources, physicians, intuition, and practices that have worked for years. Nurses ranked literature, texts, or journals in the bottom five of all sources accessed for information. Pravikoff, Tanner, and Pierce (2005) studied EBP readiness among nurses and found that 61% of nurses needed to look up clinical information at least once per week. However, 67% of nurses always or frequently sought information from a colleague instead of a reference text, and 83% rarely or never sought a librarian's assistance. If an organization provides resources for practice inquiry and creates an expectation of their use, EBP can flourish. Those who do not provide such resources must address this critical need.

Overcoming Barriers

One ongoing responsibility of leadership is to identify and develop a plan to overcome barriers to the implementation and maintenance of an EBP environment. This responsibility cannot be taken lightly and must be a part of the implementation plan.

Those involved in EBP have repeatedly cited *time constraints* as a barrier that prevents implementation of EBP and the continued use of an investigative model for practice. Providing clinical release time to staff participating in an EBP project is essential. Experience shows that staff need time to think about and discuss the EBP project; to read the latest evidence; and to appraise the level, strength, and quality of that evidence. Reading research and critiquing evidence is challenging and demanding work for most nurses and requires blocks of time set

aside for effective work. It cannot be done in stolen moments away from the patients or in brief, 15-minute intervals. Nurses need uninterrupted time away from the clinical unit.

A lack of supportive leadership for EBP is another major barrier to the creation and maintenance of an EBP environment. Leadership can be facilitated through the vision, mission, philosophy, and strategic plan. The top leaders must incorporate EBP into their roles and normative behavior. To create a culture of organizational support for EBP, the day-to-day language must be consistent with using evidence and be a part of the organizational values. That is, leaders must *talk the talk*—making a point to ask, “Where is the evidence?” Leaders must also *walk the talk*, demonstrating daily a regard for evidence in their actions and behaviors. Does the organization value science and research and hold its staff accountable for using the best evidence in practice and clinical decision-making? Do leaders question whether routine decisions are made using the best possible data and evidence or using experience or history, financial restrictions, or even emotion? Do leaders themselves use the best evidence available for administrative decision-making? This can easily be seen if one looks at the titles of administrative staff within the organization. Does the organizational chart reflect a leader for departments such as research and quality improvement?” To whom do they report? Are these roles centralized or decentralized in the organizational structure?

A lack of organizational infrastructure to support EBP is another significant barrier. Resources, in terms of people, money, and time, need to be negotiated and allocated to support the initiative. Staff must be able to access library resources, computers, and current evidence in online database resources. Experts, such as the champions and mentors, must also be part of the available infrastructure.

Nurses themselves can be a significant barrier to implementing EBP. They often lack the skills, knowledge, and confidence to read results of research studies and translate them into practice. Some nurses also may resist EBP through negative attitudes and skepticism toward research. In some organizations, nurses may feel they have limited authority to make or change practice decisions and are skeptical that anything can result from the pursuit of evidence. Another potential

barrier is the relationships of staff nurses with other nurses in the organizational hierarchy, such as clinical nurse specialists, and with physicians and other professional staff.

Barriers that come from nurses are best dealt with through prevention and planning to assess and identify staff needs. The EBP leaders, champions, and mentors can support the staff throughout the EBP process to incorporate the changes into practice. Professionals need to value each others' contribution to patient care and clinical decision-making. If the input of all staff, especially that of nurses, is not valued, a lack of interest and confidence in participating in an EBP initiative is the result.

Lack of communication is a common barrier to implementation of any change, but it is particularly detrimental to EBP initiatives. This barrier can be overcome by using the strategies in the design of a communication plan for an EBP initiative. As the staff develops EBP and approaches the clinical environment with critical thinking, they want to know that what they are doing is valued. The staff expects leaders to be responsive and open to their concerns or questions as the change is implemented. Staff will take ownership of the change if they sense that their leaders are partners in the change process.

A final barrier is *lack of incentives*, or rewards, in the organization for support of an EBP environment. Some think that staff should not have to be rewarded for doing their jobs. Leaders should consider, however, whether the organization's system includes incentives or disincentives and whether an accountability-based environment exists. Establishing an EBP environment and continuing EBP project work is challenging and requires a level of commitment on the part of all involved. Incentives can be dealt with in several areas already discussed: communication, education and mentoring, job descriptions, and evaluation tools. The leadership team should understand the need for such incentives and plan for recognition and rewards that are a part of the EBP implementation process. These are crucial discussion points during the planning, implementation, and maintenance of the change.

Leading Change and Managing Transition

A key factor for success when undergoing a culture change is that nurse leaders and those assigned to implement the change understand the difference between change and transition (see Table 9.2) and how to *lead* change and *manage* transitions (Bridges, 2016); this understanding provides insights on how to overcome the barriers discussed earlier.

Table 9.2 Definitions of Change and Transition

Change	An event that starts, stops, and occurs external to us
Transition	An emotional or psychological process that occurs internally—inside the hearts and minds of staff as they come to grips with the new way of doing things

Change is an event that has clear and tangible starting and stopping points. For example, a staff-led EBP project finds that patients and families prefer clinical staff to wear color-coded scrubwear to distinguish among team members. Based on this evidence, a decision is made to change to standard colors for scrubwear for all clinical staff. This is change—it begins with selecting colors for clinicians and ends when staff begin wearing the new scrubs. *Transition*, on the other hand, involves “letting go” of something familiar, valued, or treasured, which generates a feeling of loss. When staff are labeled “resistant to change,” it is more accurately the transition they are resisting—the emotional process. Though change can take place in a short period, the time trajectory for transitions is different for each person and is defined by their emotional state at any given moment. So, to understand why some staff may resist change, leaders of the change have to understand what staff will have to let go of if a recommendation is made to standardize scrubwear.

The amount of planning for change and transition is directly related to the scope and complexity of the change and the amount of spread. Some changes may consist of simple, straightforward communication or educational “fast facts” on a

device such as switching from use of a flutter valve to an incentive spirometer on a post-operative surgical unit. Or it may be complex, multifaceted, and hospital-wide, such as implementation of a nurse-managed heparin protocol that impacts nurse and physician responsibilities and workflow across the hospital. In either situation, knowing the difference between change and transition is important to success.

Strategies for Managing Transitions

Strategies for managing change are concrete and are guided by tactical plans such as those outlined in Appendix A. However, when change activities spark resistance, it is a clue that the staff are dealing with transition—the human side of the change. Resistance to change is how feelings of loss are manifested, and these are not always concrete. Losses may be related to attitudes, expectations, and assumptions—all of which make up staff comfort zones and provide them with a sense of routine and familiarity in what they do every day.

One way to head off resistance is to talk with staff about what they feel they stand to lose in doing things a new way—in other words, assess their losses. Another strategy to help staff move through the transition is to describe the change in as much detail as possible and to be specific so that staff can form a clear picture of where the transition will lead, why, and what part they play. In assessing loss, leaders need to think of individuals and groups that will be affected by the change both directly and downstream of the practice or process that is being changed. Because transitions are subjective experiences, not all staff will perceive and express the same losses. Examples of the range of losses include competence, routines, relationships, status, power, meaning to their work, turf, group membership, and personal identity (Bridges, 2016). Specific strategies to address these transitions include:

- Talk with staff openly to understand their perceptions of what is ending. Front-line clinicians have enormous wisdom, and what they see as problems with the change should be respected and tapped into by valuing rather than judging their dissent. Do this simply, directly, and with empathy. For example, say, “I see your hesitation in supporting the new

scrubwear decision. Help me understand why.” In the end, staff are likely to move through the transition more quickly if given the chance to talk openly about their losses.

- Because culture is local, tailor *how* the change is implemented to the context of the care-giving unit where staff work; staff need to own this action locally. This is one reason that informal leaders and change champions are important.
- Clarify what is staying the same, to minimize overgeneralization and overreaction to the change.
- After acknowledging the loss, honor the past for what has been accomplished. Present the change as a concept that builds on this past. One way to do this is with symbolic events or rituals that can be powerful markers of honoring the past. For example, staff may create a quilt or collage of pieces or patterns of their scrubwear or write on a large poster in the break room to mark what they are letting go.
- It is human nature for staff to complain, before they accept the new way of doing things. Avoid arguing about the statements you hear, because it shuts down communication; rather, liberally use your active listening skills. Understanding is more important than agreement. Be transparent, and let staff know when you don't know the answer; commit to finding out.

Do not underestimate the significance of communication in the change-and-transition process. Communication is essential in building broad support at both the organizational and the local levels. A key strategy is to be transparent and say everything more than once. Because of the amount of information that staff are exposed to, they need to hear it multiple times before they begin to pay attention. Bridges (2016) recommends a rule of thumb as six times, six different ways, focused at the local level in explicit terms. For staff to see the outcome of

the change and move through the transition, follow these four communication guidelines:

1. Describe clearly where you are going with the change; if people understand what the *purpose* is, and the problem that led to the change, they will be better able to manage the uncertainty that comes with transition.
2. One outcome of communication is to leave staff with a clear, specific *picture* of what things will look like when the change is completed: What will the new workflow be? How will it look? What will it feel like? Who are the new players?
3. Explain the *plan* for change in as much detail as you have at the time; be transparent—if you don't know something, say so, and always follow with when, or what you will need, to answer their question at a later time.
4. People own what they create, so let staff know what you need from them, what *part* they will have, and where they will have choices or input.

Building Capacity

Building capacity refers to arming staff with the knowledge, skills, and resources to procure and judge the value of evidence and translate it into practice. Developing competency in using and applying EBP is best accomplished through education and direct practice gained through work on interprofessional teams.

Developing EBP Skills and Knowledge

The most popular format for EBP education programs at JHH is the one-day workshop. The morning session covers EBP concepts, the *JHNEBP Model and Guidelines*, and evidence searching and appraisal techniques. In the afternoon, attendees critique and appraise the evidence for an EBP question and decide, as a group, whether a practice change is warranted based on the evidence available to them. The one-day workshops have been implemented successfully in many settings outside of Johns Hopkins, including in rural, community, and nonteaching hospitals and other large academic medical centers. The educational topical outline for the one-day workshop is shown in Table 9.3.

Table 9.3 One-Day Workshop Topics and Objectives

Subject Area	Objectives
Introduction to EBP	Explain the origins of EBP Discuss the importance of EBP Define EBP
Guidelines for Implementation	Describe the JHNEBP Model Discuss plans for using the model Explain the steps in the process Discuss how to develop an answerable question
Appraising Evidence	Describe the different levels of evidence Determine where to look for evidence
Searching for Evidence	Discuss library services: How to have a search run by the library How to order articles How to do a basic literature search
Appraising the Evidence Application	Provide explanation of the evidence appraisal forms Facilitate group appraisal or evaluation of assigned articles Discuss appraisal of level and quality of each article Complete individual and overall evidence summary forms
Summarizing the Evidence and Beyond	Facilitate discussion of synthesis of the evidence Determine whether practice changes are indicated based on the evidence Describe fit, feasibility, and appropriateness of practice change Discuss how the practice change can be implemented Discuss how changes can be evaluated

Interprofessional Collaboration

In today's team-focused healthcare environment, interprofessional collaboration for the evaluation and dissemination of evidence in the healthcare work setting

is a high priority because many practice changes involve not only nurses but also physicians, other allied health professionals, administrators, and policymakers. A conference held in February 2011 in Washington, DC—sponsored by the Health Resources and Services Administration (HRSA), Josiah Macy Jr. Foundation, Robert Wood Johnson Foundation, ABIM Foundation, and Interprofessional Education Collaborative (IPEC)—brought together more than 80 leaders from various health professions to review “Core Competencies for Interprofessional Collaborative Practice” (IPEC Expert Panel, 2011). The meeting’s agenda focused on creating action strategies for the core competencies to transform health professional education and healthcare delivery in the United States. Competency Domain 4 supported the need for interprofessional teams to provide evidence-based care: “Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable” (p. 25). When EBP teams are being developed, consider interprofessional participation and the identification and development of EBP mentors from the allied health professions.

Collaboration with a School of Nursing

It is widely recognized that education to develop skills and knowledge about EBP is essential for today’s healthcare professional (IOM, 2003). This education is important at all levels of nursing education (AACN, 2006, 2008, 2011). The development of a collaboration with a school of nursing (SON) can benefit EBP for both organizations. The practice organization can provide real-life EBP questions for the students to use in their research courses. As a course assignment and using the questions provided by the collaborating SON, nursing students can search and critique the available evidence from PubMed and CINAHL to inform the practice question. The students can prepare a summary of the evidence, synthesize the findings, and make general recommendations for the practice organization to evaluate and consider translating to their practice.

EBP is an essential competency for Doctor of Nursing Practice (DNP) programs. Most DNP projects use the EBP process to evaluate the strength of evidence for

translation into practice to solve a practice or administrative problem. PhD programs require that students understand the EBP process and use results to generate new knowledge for the profession. The collaboration between DNP and PhD graduates provides a strong team approach to improve clinical practice. Practice questions, issues, and concerns are often generated at the point of care by nursing staff, including DNP graduates. These practice questions result in evidence search, critique, and synthesis of findings. However, the synthesis of findings is not always strong or clear and requires further evaluation. This evaluation often involves a pilot study to generate new evidence. The involvement of the PhD-prepared research nurse is critical to the design of research and generation of new knowledge. This collaborative approach to practice between the profession's doctorally prepared nurses is the goal for practice organizations.

Finally, a collaboration with a SON can also foster the creation of faculty practice arrangements and faculty development. The development of a faculty practice can take many shapes, including both direct and indirect practice collaborations, depending on the needs of the practice organization and the SON. To more effectively integrate EBP concepts into the SON curricula and for professional development in the organization, a collaboration can be beneficial for both groups.

Sustaining the Change

At the beginning of an EBP strategic initiative, the organization's leaders must support and sustain a change in how the organization approaches its work. The leaders, mentors, and change champions and those responsible for the initiative must continually listen to the staff and be responsive to their comments, questions, and concerns. For EBP to become fully adopted and integrated into the organization, the perception that changing practice will improve quality of care and make a difference in patients' lives must be felt by all staff. The passion will be palpable when EBP becomes a part of the daily routine. Therefore, sustaining the change requires an infrastructure that aligns staff expectations and organizational structures with the strategic vision and plan for a culture based on evidence.

Setting Expectations for EBP

Setting role expectations for EBP through development of job descriptions, orientation programs and competencies, and performance evaluation tools is a first step in developing human capital for EBP and for hard-wiring the culture of practice based on evidence. These personnel tools should be developed or revised to emphasize the staff's responsibility and accountability for making administrative and practice decisions to improve patient care outcomes and processes. The tools must be consistent across the employment continuum. For example, the job description should state what is expected of the nurse in terms of standards and measurement of competence; the orientation should introduce the nurse to the organization and how standards are upheld and competencies are developed at the organization; and the performance evaluation tool should measure the nurse's level of performance on the standards with specific measures of competence. Table 9.4 provides examples of standards of performance and competence from the JHH department of nursing job descriptions.

Table 9.4 Excerpts from JHH Job Descriptions for Staff Nurses

CLINICAL PRACTICE

Nurse Clinician I: Applies a scientific basis or EBP approach to nursing practice

1. Complies with changes in clinical practice and standards
2. Participates in data collection when the opportunity is presented
3. Poses relevant clinical questions when evidence and practice differ
4. Consults appropriate experts when the basis for practice is questioned
5. Uses appropriate resources to answer EBP questions
6. Additional requirement for IM: reviews current evidence relevant to practice

continues

Table 9.4 Excerpts from JHH Job Descriptions for Staff Nurses (continued)

CLINICAL PRACTICE

Nurse Clinician II: Applies a scientific basis or EBP approach to nursing practice

1. Seeks and/or articulates rationale and scientific basis for clinical practice or changes in standards
2. Supports research-based clinical practice (teaches, models, applies to own practices)
3. Participates in data collection when the opportunity is presented
4. Identifies differences in practice and best evidence
5. Generates clinical questions, searches evidence, and reviews evidence related to area of practice
6. Consults appropriate experts to answer EBP questions
7. Articulates evidence-based rationale for care

Nurse Clinician III: Interprets research and uses scientific inquiry to validate and/or change clinical practice

1. Evaluates research findings with potential implications for changing clinical practice, compares practice to findings, and takes appropriate action
2. Designs tools and/or participates in data collection and other specific assignments (e.g., literature review) in the conduct of research when the opportunity presents
3. Mentors staff to identify differences in practice and best evidence; generates clinical questions; searches evidence; and reviews and critiques evidence related to areas of clinical, administrative, or education practice
4. Serves as a resource and mentor in evidence-based discussions articulating rationale for practice
5. Participates in implementing EBP through modeling and support of practice changes
6. Incorporates EBP into daily patient care and leadership responsibilities
7. Participates in and supports EBP projects within the unit or department

RESOURCES

Uses critical thinking and scientific inquiry to systematically and continually improve care and business processes and to achieve financial goals.

Committee Structure

The committee structure is designed to promote excellence in patient care, education, and research by:

- Recruiting and retaining a diverse professional staff
- Establishing evidence-based standards of care and practice
- Promoting interprofessional quality improvement and research
- Advancing professional growth and development

These committees and their members took on the roles of EBP change champions and mentors for the department of nursing. Each committee serves a different but important role for implementing EBP throughout the organization.

Table 9.5 describes EBP functions for the department of nursing professional practice committees.

Table 9.5 Department of Nursing Committee Functions Related to EBP

Committee	Functions
EBP Steering Committee	Establishes strategic initiatives for EBP within and external to JHH and The Johns Hopkins University School of Nursing (JHUSON)
Clinical Quality Improvement Committee	Promotes evidence-based improvements in systems and processes of care to achieve safe, high-quality patient outcomes
Leadership Development Committee	Recommends and implements innovative evidence-based strategies for management and leadership practice
Research Committee	Supports discovery of new knowledge and translation into nursing practice

continues

**Table 9.5 Department of Nursing Committee Functions Related to EBP
(continued)**

Committee	Functions
Standards of Care Committee	Promotes, develops, and maintains evidence-based standards of care
Standards of Practice Committee	Promotes, develops, and maintains evidence-based standards of professional practice

Communication Plan

A communication plan should be an integral part of both the EBP process and its sustainability. The plan should address:

- The goals of the communication
- Target audiences
- Available communication media
- Preferred frequency
- Important messages

Minimally, the goals for an EBP communication plan should focus on staff to increase awareness of the initiative, educate staff regarding their contribution, highlight and celebrate successes, and inform staff about EBP activities throughout the organization. Consider developing an EBP website within the organization's intranet. This website can be an excellent vehicle for communicating EBP information, including questions under consideration, projects in progress or completed, outcomes, and available EBP educational opportunities. The website can also serve as a snapshot and history of an organization's EBP activities and can be helpful when seeking or maintaining Magnet designation.

Finally, the communication plan can use online surveys to involve staff by asking opinions about potential or completed work, maintaining a finger on the pulse of initiatives, and developing EBP “messages.” Messages can target the communication, link the initiative to the organization’s mission, and give a consistent vision while providing new and varied information about the initiative.

After movement toward a supportive EBP environment begins, the biggest challenge is to keep the momentum going. To sustain the change, the staff must own the change and work to sustain it in a practice environment that values critical thinking and uses evidence for all administrative and clinical decision-making.

As resources are allocated to an EBP initiative, some may raise questions about expenditures and the costs related to EBP. To sustain the work of and value to the organization, EBP project work needs to be aligned to organizational priorities. It is helpful to identify EBP projects that improve safety or solve risk management problems; address wide variations in practice or in clinical practice that are different from the community standard; or solve high-risk, high-volume, or high-cost problems. Consider asking these questions: “Is there evidence to support the organization’s current practice? Are these the best achievable outcomes? Is there a way to be more efficient or cost-effective?” Improvements or benefits to the organization could result in any of these important areas if EBP work identified best practices to improve outcomes of care, decrease costs, or decrease risks associated with the problem. Another way to show the cost effectiveness of EBP work is to improve patient and/or staff satisfaction or health-related quality of life. Sustaining the change also involves developing an evaluation plan to identify process and outcome performance measures that monitor implementation, commitment, and results. The measures should determine the usefulness, satisfaction, and success of the EBP environment. Are the initiatives changing or supporting current practice? What best practices or exemplars have resulted? Has the organization saved money or become more efficient? What performance data shows that this is making a difference to the organization? The evaluation plan should include a timeline and triggers that would signal when a modification of the plan is necessary.

Summary

We have learned many lessons in the development, implementation, and continual refinement of the *JHNEBP Model and Guidelines*. The need to create a supportive EBP environment is one of the most important lessons. Essential to that effort is recognition of the importance of capacity building for EBP. A supportive leadership is essential to establish a culture of EBP, including the expansion of infrastructure and the allocation of resources—such as time, money, and people—to sustain the change. Leaders set priorities, facilitate the process, and set expectations. The development of local mentors and champions contributes to the successful implementation of EBP and helps overcome barriers and resistance to EBP.

A culture of critical thinking and ongoing learning creates an environment in which evidence supports clinical and administrative decisions, ensuring the highest quality of care by using evidence to promote optimal outcomes, reduce inappropriate variation in care, and promote patient and staff satisfaction. Working in an EBP environment changes the way nurses think about and approach that work. As the nursing staff develop expertise in the EBP process, their professional growth and engagement begins a personal and organizational trajectory leading to evidence-based decisions, a higher level of critical review of evidence, and engagement in the interprofessional team as valued contributors.

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