

Engaging Bedside Nurse in Research and Quality Improvement

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Nurses are expected to participate in research and scholarly inquiry; despite ongoing attempts, the practice–research gap continues to be fraught with significant barriers. System strategies have not addressed concerns at the individual nurse level. Given the implications on quality and safety, focusing on identification of individual nurse strategies should be an important focus of attention for nursing leaders and researchers. This article seeks to describe barriers, potential solutions, and implications for nurse leaders.

It is well known that nursing research is vital to providing high-quality patient care, and nurses are in the ideal position to identify key knowledge gaps across disciplines (Gettrust et al., 2016; Mohsen et al., 2016; Stutzman et al., 2016). According to the American Association of Colleges of Nursing, nurse engagement in research activities should be an aspiration for all nurses (American Association of Colleges of Nursing, 2006). According to the American Nurses Association's Code of Ethics, nurses have an ethical obligation to participate in scholarly inquiry (American Nurses Association, 2015). Specifically, the expectations include development, evaluation, and dissemination of new knowledge to advance the profession. To be successful, having an infrastructure to support research and scholarly clinical inquiry is needed.

Research, research utilization, and evidence-based practice (EBP), though used interchangeably, are distinctly different. Research uses systematic inquiry to provide new knowledge that informs practice (Polit & Beck, 2017). Research utilization uses available knowledge from a small number of studies to inform clinicians. EBP synthesizes and incorporates research knowledge with patient values and preferences to provide individualized clinical care (Cline et al., 2017). Since the concepts of evidence based and best practice emerged about 30 years ago, there has been a strong push from nurse leaders to move away from “that’s

the way we have always done it” to implementation of practices based on scientific evidence (Leach & Tucker, 2018). When EBPs are consistently implemented, health-care costs are significantly decreased (Cline et al., 2017; Scala et al., 2019).

As the only profession having a continuous presence at the bedside, nurses provide a unique perspective to identify practice gaps and develop, evaluate, and implement solutions. Despite the known benefits, significant barriers continue to impede nurses from participating in research and EBP activities. Challenges to recruit and retain experienced staff further limit opportunities (Leach & Tucker, 2018). Nursing leaders and organizations have implemented system-wide strategies to overcome barriers that fail to motivate nurses. Unfortunately, system-wide strategies do not address concerns at the individual nurse level (Scala et al., 2019). This article seeks to describe barriers, including lack of knowledge, training, and skill; lack of mentoring support; and lack of protected time along with potential solutions (see Table 1).

KNOWLEDGE, TRAINING, AND SKILL

Knowledge and attitude both play an important role in impacting nurses' opinions regarding education, specialization, and participation in clinical research. Positive attitudes toward research have been shown to increase research utilization and the use of evidence to inform practice (Bench et al., 2019; Mohsen et al., 2016). Changing the attitude starts with exposure.

When there are a lack of experiential opportunities, engagement occurs on an academic level but are not incorporated into practice skills (Bench et al., 2019). Ideally, research experientials should begin during prelicensure education and continue in the practice setting. Including opportunities for nursing students to participate in unit-level evidence-based projects may provide additional budget neutral nursing support and promote expectations for participation earlier. Providing experientials helps incorporate academic knowledge with practice skills, thus increasing nurse comfort level and ability to conduct the high-quality studies. Having the skill set to conduct research and implement EBP will be needed to answer important clinical questions that will arise later during the student's nursing career (Mohsen et al., 2016). Experientials, including opportunities to work with unit leaders and experienced staff on unit-based

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TABLE 1 Barriers, Strategies and Outcomes

Barrier	Strategy	Outcome Measure
Lack of knowledge, training, and skill	<ul style="list-style-type: none"> • Nursing student employees opportunities for EBP • Current and relevant projects • Participate in existing projects 	<ul style="list-style-type: none"> • Promote expectations • Improve attitude toward research • Increases motivation • Encourages practice ownership
Expectations	<ul style="list-style-type: none"> • Set expectations during residency and clinical ladder programs • Include in annual professional development plans 	<ul style="list-style-type: none"> • Provides incentive • Increases motivation
Mentoring support	<ul style="list-style-type: none"> • Empower shared governance committees to promote professional development • Recognize and promote research activities • Instill a culture that enables nurses to question current practices • Research process workshops and project working session • Journal clubs • Research council • Mentors may include internal and/or external colleagues • Collaborate with local academic institution • Consider all expertise such as medical librarians, technology support 	<ul style="list-style-type: none"> • Promote teamwork • Improves communication • Supports project completion
Protected time	<ul style="list-style-type: none"> • Provide internal funding support • Incorporate nonproductive time for research and EBP into nursing budget • Include in nursing job description 	<ul style="list-style-type: none"> • Reduces nurse stress • May support retention efforts • Improves nurse satisfaction • Improve patients outcomes and quality metrics

Note. EBP = evidence-based practice.

projects, need to be part of the culture and expectations of all nurses and nursing students.

Topics for review should be relevant to current unit practice needs. Increasing relevance provides meaning, motivation, and opportunity to support a true practice change (Scala et al., 2019). For example, reviewing literature regarding ventilator-associated pneumonia (VAP) while working on a unit with consistent VAP bundle compliance and low VAP rates does not improve unit practices or support the need for practice change (Schuessler et al., 2018). Conversely, a review of methods to improve communication skills might be helpful on a unit struggling with interdisciplinary collaboration (Landon et al., 2019). Specific residency content is included in Table 2. The author acknowledges that, in light of the current pandemic, holding a live workshop may not be a viable option, and therefore, content may need to be presented through other methods. Some possible alternatives include providing content via hybrid programs, a virtual reality roundtable, Webinars or some other interactive internet-based platform, or interactive online educational modules.

Setting expectations early in the nursing career promotes a culture of clinical inquiry (Schuessler et al., 2018). Nurse residency programs requiring only a literature review of any topic fall short of moving nurses beyond academic

TABLE 2 Residency Content to Support Research and EBP Implementation

• Understanding and evaluating unit outcomes to guide project ideas
• Developing the research question
• Strategies for literature searches
• Use of outcome and publication databases
• Benefits of citation management programs
• Strategies and EBP models to assist with project implementation
• Developing the sales pitch to get coworker buy-in
• Change management
• Finding a venue to present findings
• Abstract development
• Creating the poster
• Giving effective podium presentations

Note. EBP = evidence-based practice.

knowledge. When the focus of residency programs center around building skills that not only promote inquiry but also provide strategies for implementation, confidence, self-fulfillment, and satisfaction are promoted (Scala et al., 2019).

Most nurses are familiar with volunteering to participate in research and the concerns related to safety but lack understanding of regulations or research design (Aksoy et al., 2018). Having staff participate on currently existing projects and support local change can provide a great introduction. To sustain engagement and advance practice, nurses need opportunities to participate and promote self-fulfillment (Scala et al., 2019). Finally, inclusion of research participation during annual performance evaluations may incentivize participation in future research and EBP activities (Hagan, 2018; Scala et al., 2019).

MENTORING AND SUPPORT

One element of Magnet requires nurse participation in the development of “new knowledge, innovation, and improvements.” Given the need to have a program of nursing research, the low-level nurse research engagement and satisfaction should be of great concern among hospital leaders and nursing school faculty (Day et al., 2017; Hagan, 2018). Having knowledge when there is lack of available mentoring does little to promote quality improvement (i.e., EBP) or increase participation in clinical nursing research (Stutzman et al., 2016).

Shared governance and other institutional programs should empower and promote nurse professional development and support nursing research efforts (Cline et al., 2019). Leadership support for these programs as well as promotion and recognition of nurses who engage in research are needed. To support research, leaders must first appreciate the research process as well as the time and resources needed (Gifford et al., 2018). Staying alert for resistance to challenging the status quo and being prepared to remove barriers are critical to maintaining a successful program (Moore & Tierney, 2019).

Consideration regarding methods of enabling nurses to question current practices is also needed. Teamwork among staff at all levels across the organization is needed to provide high-quality patient care and outcomes. As a result, research activities may assist with developing effective partnerships. Mentoring programs that promote the use of nurses’ ideas to serve as research topics for literature review, evidence synthesis, and basis for implementation have been successful. However, caution should be exercised to minimize the message that clinical priorities and physician research restrict nursing research (Hagan, 2018). Promoting collaboration through interdisciplinary education, mentored participation, journal clubs, and research activities will support a research-friendly culture and improve communication (Cline et al., 2017).

Once engaged, barriers to workload, insufficient time, and mentoring need to be addressed (Gifford et al., 2018; Nkrumah et al., 2018). Nursing research programs require tremendous support to synthesize the overwhelming amount of information, navigate the research process, and understand the statistical analyses. The use of regular events, such as workshops or working sessions, to support various steps of the research process and disseminate findings is needed (Cline et al., 2017; Hagan, 2018). See Table 3 for an example of a research workshop. Support to build a research council, track research activities, and provide internal funding and indirect time, as well as recognition of the commitment, is critical (Day et al., 2017). These efforts are often more challenging for smaller facilities and those who are not Magnet designated. Having a nurse scientist and collaborating with a local academic institution may help overcome these challenges.

PROTECTED TIME

As the nursing workforce ages and the push for advanced practice increases, the need to find a cost-effective method to keep bedside nurses engaged continues to increase. Although the term *bedside nursing research* was introduced more than 20 years ago, nurses continue to experience barriers to obtaining protected research time (Bench et al., 2019; Scala et al., 2016). The higher staff turnover rates and limited experience at the bedside forces healthcare organizations to spend significant financial resources and time on nurse recruitment and retention, limiting the ability to support indirect time for research initiatives (Scala et al., 2019, 2016). To combat turnover, some researchers have argued that promotion of research may increase contentment and satisfaction with clinical bedside nursing care. It may behoove healthcare system leaders to be diligent with incorporating research into nurse residency and clinical ladder programs that provide protected time to help nurses develop a passion for research. Implementing a program to support nurses during each step of the research process with accountability will also provide an infrastructure to support and maintain research initiatives.

TABLE 3 Example Workshop

Day 1	Day 2	Day 3
Review EBP Model	Determining outcome measures	Developing abstract
Developing PICOT question	Designing the project	Writing a manuscript
Reviewing the literature	Implementing the project	Presenting outcomes
		Developing poster

For example, a facility near the author has a 3-day workshop divided into key steps, such as developing the research question using models like PICOT and conducting literature reviews on Day 1, identifying methods for implementation and evaluating success on Day 2, and focusing on dissemination on Day 3. By providing support, such as the workshops described, nurse satisfaction and patient-related outcomes will also improve (Scala et al., 2019).

Despite the need for research, nurses are laden with competing priorities: higher acuity patients, increasing technology such as electronic medical records, precepting, leadership responsibilities, and expectations for remaining abreast of and adhering to the ever-changing policies and procedures. These expectations are associated with increased nurse stress and overextension (Scala et al., 2019). Nurse surveys ranking barriers have highlighted the need to overcome the insufficient on-the-job time for literature review and protocol implementation as the most significant barrier (Cline et al., 2017). To be successful, leaders must ensure protected time for nurses to recruit, review medical records, and complete data entry.

A well-established program that includes academic and financial incentives empowers physicians to develop an active program of research but are not currently available for most nurses. Therefore, developing an innovative method to provide protected time and secure funding to promote clinical nursing research, such as through grant and industry funding, may provide temporary support (Stutzman et al., 2016). Implementation of research internships with protected time for research activities beyond nurse residency is critical to providing the ongoing infrastructural support (Cline et al., 2017). Clinical ladder programs should include ongoing project implementation; using scientific evidence in the clinical ladder program is one way to ensure experienced nurses have an opportunity to receive support. To meet the needs of nurses in research internships and advancing on the ladder, mentoring and support should be routine with some level of accountability. Development and utilization of EBP and nursing research councils, journal clubs, and a nursing research department with nurse scientists to support research are beneficial (Hagan, 2018). For smaller hospitals or those just developing a program, collaboration with a local academic institution may be more feasible. Finally, incorporating research activity into nursing job descriptions may also increase nurse inquiry and participation in research-related activities.

INCREASING NURSE SATISFACTION

Nurses who participate in research activities are better prepared to elicit and implement EBP. Having opportunities to participate in research and EBP practice projects increases practice ownership and nurse satisfaction (Hagan, 2018). Similar findings have been found in advanced practice

roles where staff hold a master's or doctorate-level degree. It appears there is a synergistic effect in staff with higher levels of education having more interest and engagement in research activities. Thus, it makes sense that nurses with higher levels of education may be more dissatisfied when opportunities to engage in research are nil. Therefore, providing opportunities for nurses to engage in research is desperately needed to increase nurse satisfaction, decrease nurse turnover, advance nursing science, and improve patient outcomes (Hagan, 2018; Wilson et al., 2015). Some suggestions include modifying nurse residency and clinical ladder programs, providing mentoring and education to guide nurses through the research process, and increasing incentives (Hagan, 2018).

CONCLUSION

Nurse participation in clinical research and EBP supports the conduct of high-quality care. Simultaneous clinical practice and research to design and deliver quality projects are needed to improve local, national, and international practice (Gettrust et al., 2016). Three barriers to participating in research have been described, including lack of knowledge, training, and skill; lack of mentoring support; and lack of protected time. Although many researchers have endeavored to overcome barriers to narrow the divide between research and practice (e.g., through the delivery of education-based interventions), attempts to close the “gap” have proved to be only partially successful at best (Leach & Tucker, 2018). Such a divide results in the delivery of care that is either superfluous, ineffective, inefficient, or inconsistent with practices elsewhere—the implication being the provision of substandard patient care. Given the potential implications the research–practice gap has on quality and safety, identification of strategies that may narrow the gap should be an important focus of attention for nurse leaders and researchers. Potential solutions include having nursing research priorities, motivating nurses to participate in research, a positive culture, as well as leadership support and resources to carry out research activities (Bench et al., 2019).

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