

# **Narrowing the Practice Gap: Approaches for establishing and sustaining clinical-academic partnerships**

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- Discuss the need for a formalized structure that bridges clinical and academic realms
- Identify the need for collaborations that support evidence-based practice, quality improvement, and research in both clinical and academic settings
- Describe steps for enhancing collaboration, mentorship, and resources
- Recognize strengths and challenges in forging clinical-academic partnerships

- Nursing leaders are guiding the next era of innovation, fostering clinical and academic partnerships
- The role of academic nurses within a clinical team is not well-defined
- Clinical nurses can lead nursing inquiry projects:
  - Evidence-based practice (EBP)
  - Quality improvement (QI)
  - Research

- The *Code of Ethics* for the International Council of Nurses (ICN) provides rigorous standards for nursing practice
- ICN promotes the development of research-based knowledge and evidence-based practices
- The ANA *Code of Ethics* Provision 7.3 and states  
“All nurses working alone or in collaboration with others can participate in the advancement of the profession through the development, evaluation, dissemination, and application of knowledge in practice” (ANA, 2015, p. 27).

- AACN and AONL joint task force developed a toolkit for developing sustainable academic practice partnerships
- The [AACN/AONL's Guiding Principles to Academic-Practice Partnerships](#)
- Partnerships included strategies for building such relationships with a focus on:
  - Shared knowledge
  - Mutual respect
  - Maximization of learning for nurses
  - Infrastructures that promote evidence-based practice



- Review of international literature
- PubMed, CINAHL and Google Scholar databases
- Explored barriers and facilitators for establishing clinical-academic partnerships
- Professional perspectives from both sides of clinical/academic collaborations



- Common outcomes identified about clinical-academic partnerships were:
  - Improved nursing scholarly inquiry capacity
  - Mutual benefit through mentorship and education
  - Shared leadership
- These benefits include:
  - Improving patient outcomes
  - Increasing nursing student enrollments and graduations
  - Increasing availability of clinical experiences and faculty
  - Promoting interprofessional education and organizational development

- Integration of EBP, QI, and research in the clinical setting improves patient outcomes
  - Reduced readmission rates,
  - Hospital-acquired infections,
  - Patient falls
- Improved patient safety and satisfaction
- Reflected in improved HCAPS scores





- Finding dedicated time for bedside nurses to participate in research
- Lack of training for conducting research
- Funding opportunities
- Statistical, research, and informatics support and other resources needed to lead rigorous projects



- Creating a shared vision
- Setting clear goals for projects
- Measurable project outcomes
- Keeping open communication
- Support from organizational leadership
- Involvement of key stakeholders
- Assessments of strengths and weaknesses for both partners



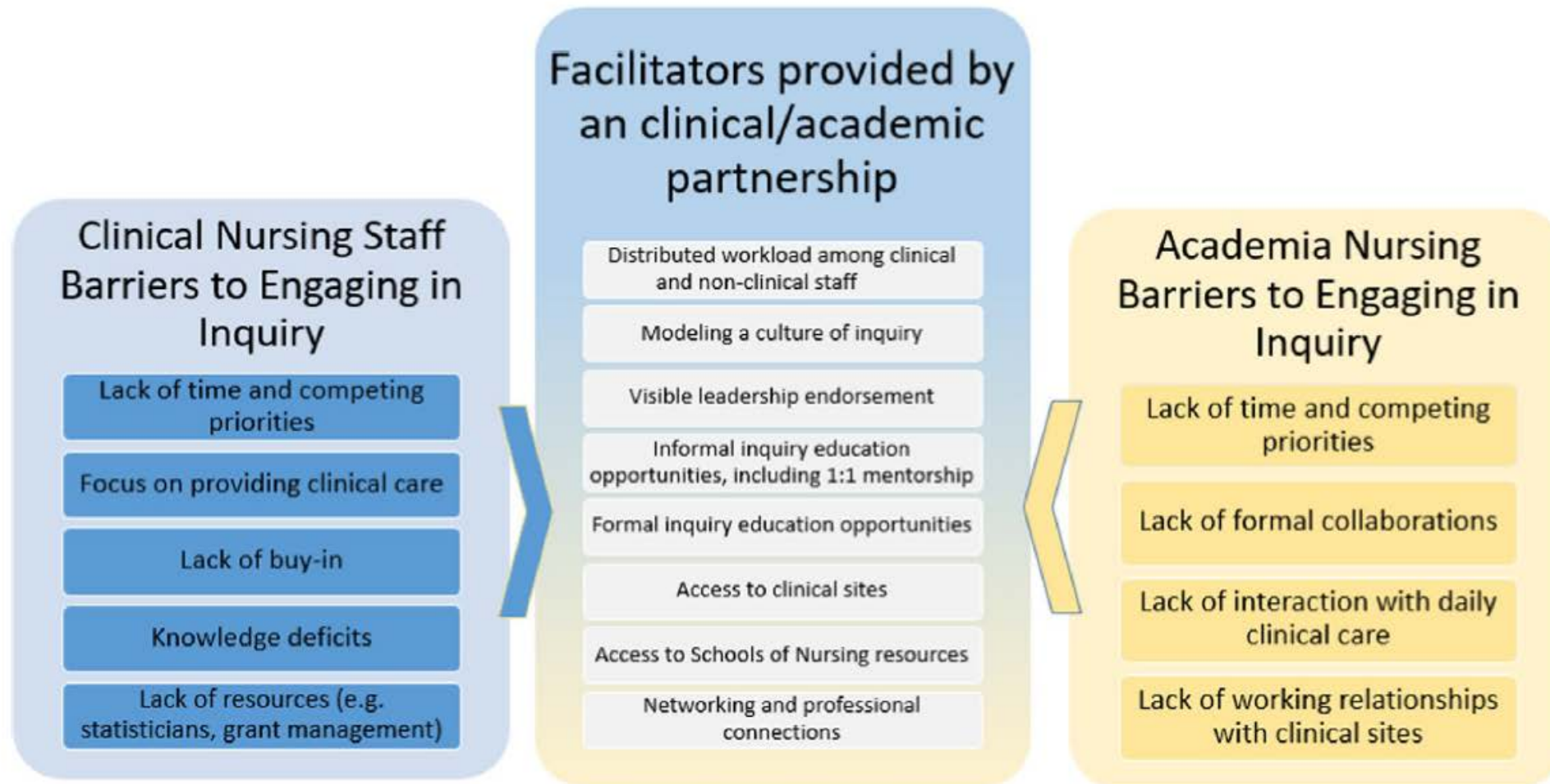


FIGURE 1 Barriers and facilitators to clinical academic partnerships

- Clinical-academic partnerships support learning for nurses on both sides
- Clinical nurses benefit from education and integration of EBP
- Mutual benefit and value added by nursing student-led projects from pre-licensure to DNP and PhD projects

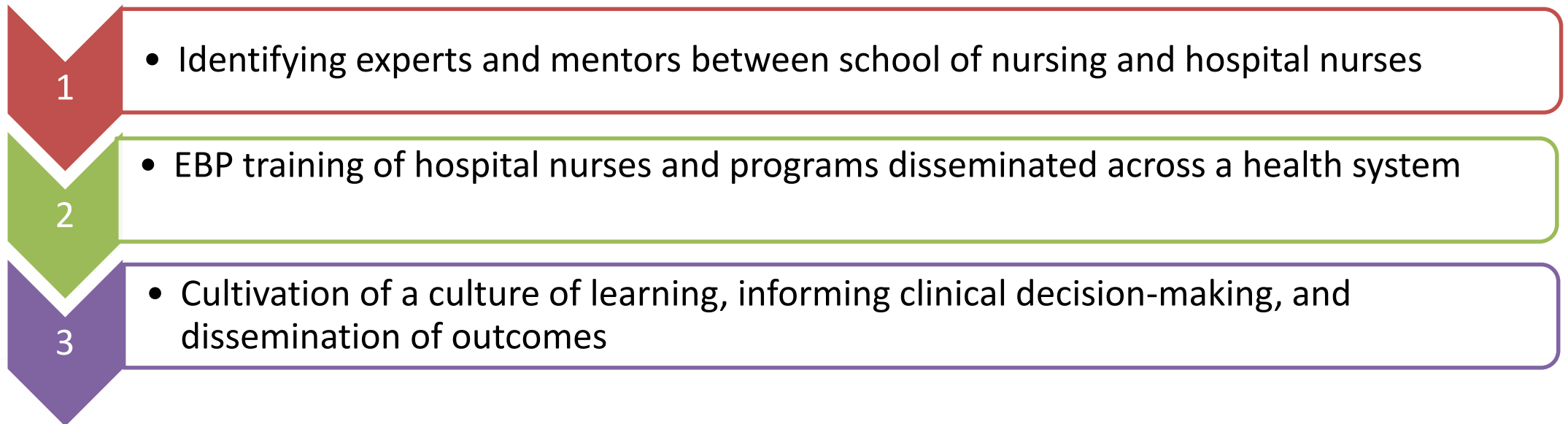


- Nurse leaders from the schools of nursing and hospitals can form a collaborative team
- Assess education needs, lead QI, EBP, and research projects
- Return on investment to prevent nurse burnout
- Mutual commitment to healthcare between faculty, staff, students and nurses in practice, science, and innovation



- Hospitals with Magnet<sup>®</sup> designation depend on interprofessional collaboration and shared scholarly programs.
- Faculty support Magnet<sup>®</sup> efforts on EBP, QI and research projects, participate in nurse residencies and offer community support at Magnet<sup>®</sup> accreditation visits
- Value-based priorities and uniform standards of practice across academia and practice serve as the intellectual foundation of nursing

- Several frameworks to facilitate partnerships to support the development of mentorship and education
- Multi-modal training program to integrate EBP within three phases:



- Establishment of definitive roles for nurses from both the clinical and academic sides
- Formally structured partnerships can involve contracts, financial agreements, and other binding documents that include clear goals and strategic plans for both entities
- A formalized clinical nurse research consultant role or a 'resident professor'
- The formalized role supervises research, ensures ethical practices, and provides mentorship and role modeling
- To maximize the effectiveness, the person must hold a joint appointment between both clinical and academic institutions



# Determine Feasibility

## Contribution to the Science of Nursing



- **Poster presentations**
- **Publications**
- **Nursing led inquiry projects**



## Culture Change

- **Integration of nursing into Interprofessional research teams**
- **Conference attendance by all levels of nursing**
- **Incorporation of best evidence and QI components into daily clinical practice**
- **Demystification of inquiry methods**



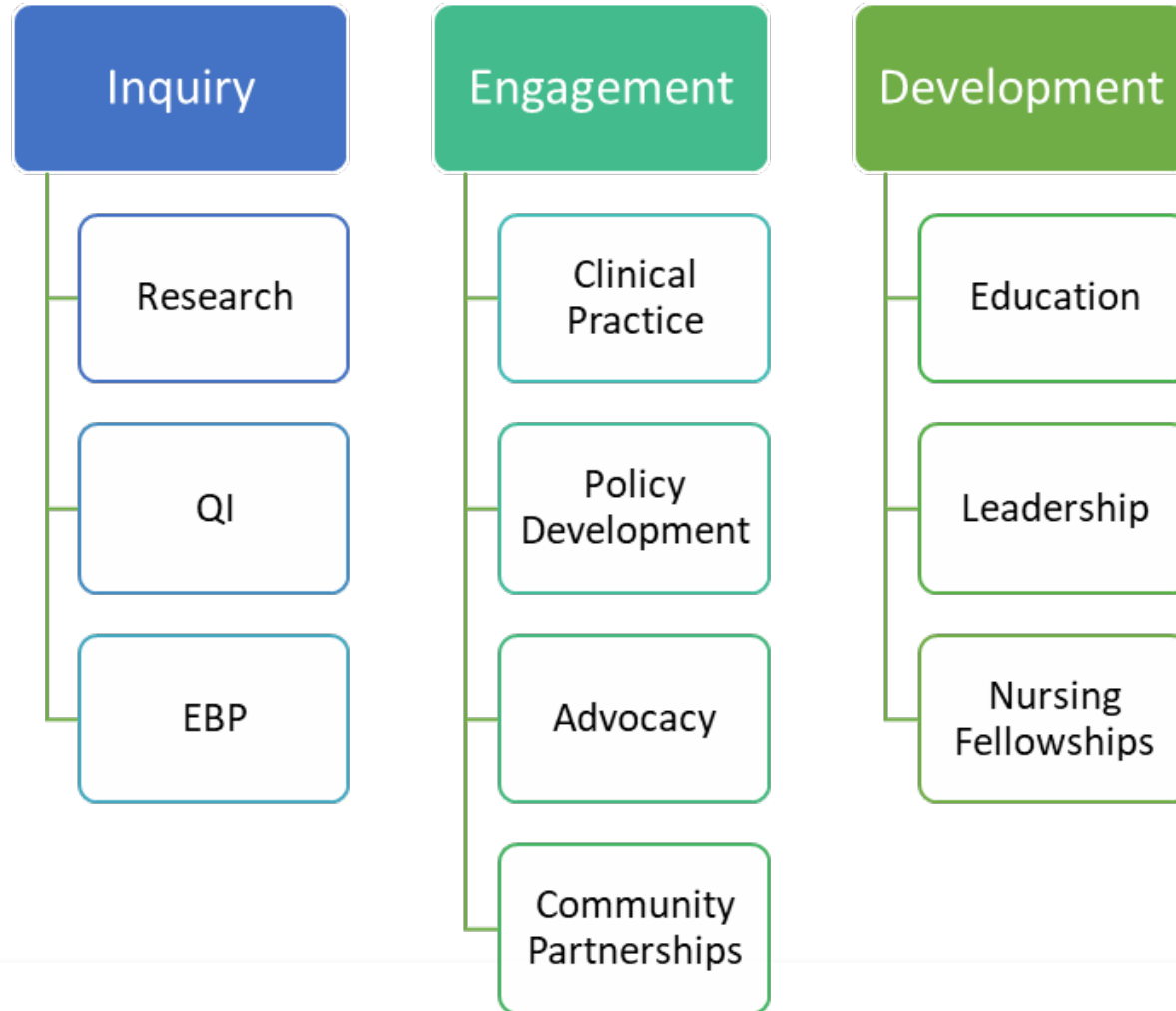
## Professional Development

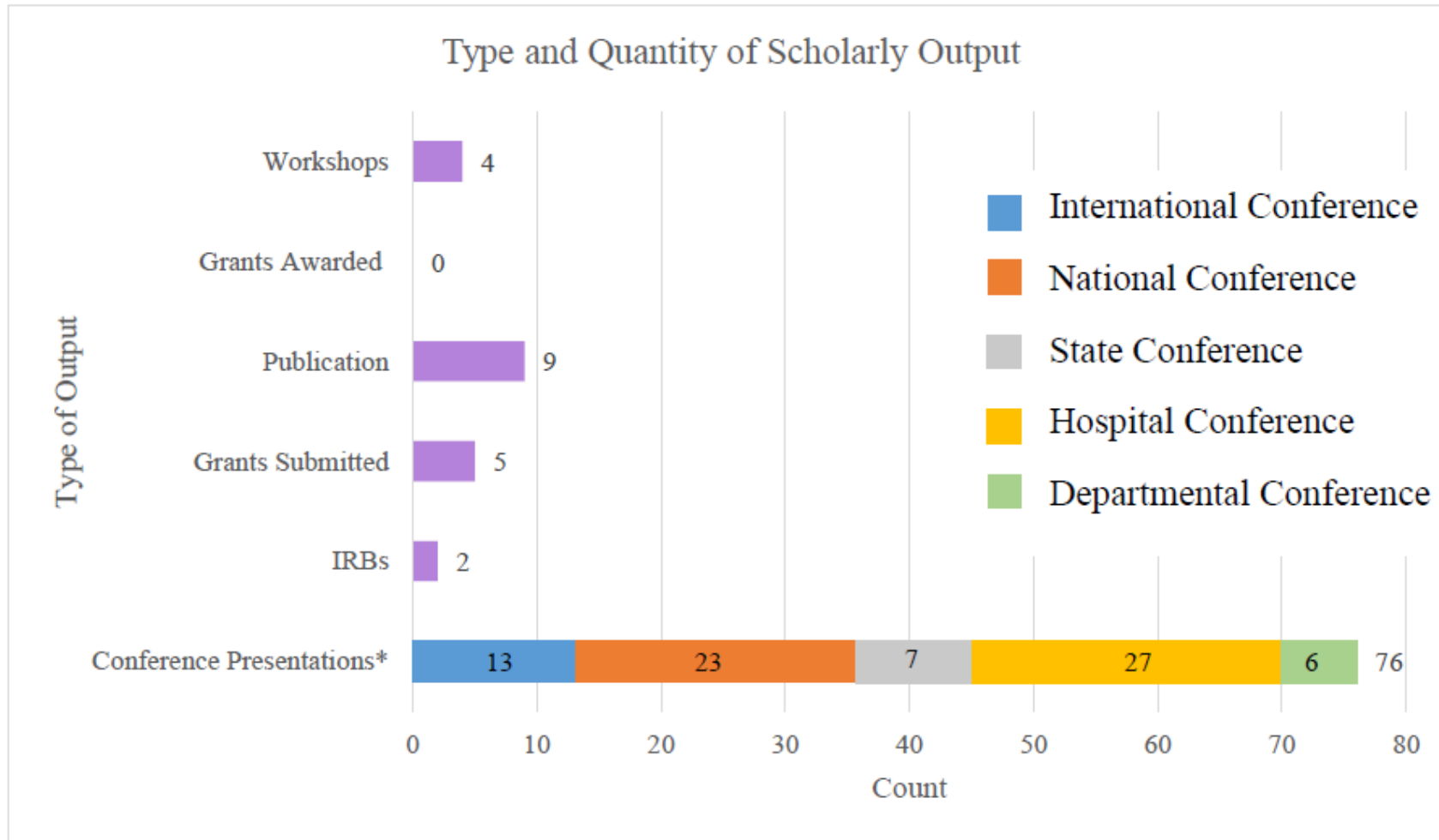
- **Promotion of advanced nursing certifications**
- **Education workshops**
- **Mentorship**
- **Coaching**
- **Increased organizational membership**
- **IRB trainings and certification**
- **LEAN sigma certification**
- **Patient Safety Certification**



## Bridging the Academic-Practice Gap

- **Shared resources**
- **Academic/Clinician collaboration and partnerships**
- **Dual-appointments**
- **Pre-licensure student fellowship**
- **Doctor of Nursing Practice clinical capstone projects**
- **Increased eligibility for grants requiring transdisciplinary teams**





- Partnerships should be based on strategies such as
  - Sharing technology, coordinating schedules
  - Ensuring equity across all programs to impact workforce outcomes by
  - Exchanging ideas and data through clinical, technical, and economic structures
- Normalizing the connection between academia and practice also standardizes the idea that we are not mutually exclusive



- Embed faculty in the practice system
- More closely aligned with academia and students – the better prepared for the realities of clinical practice
- Doctoral students working alongside new nurses model
  - The potential for career development
  - Encourages active participation
  - Opens up new possibilities while providing positive experiences for doctoral students
  - Develop new findings and practice new skills
- Increase recruitment and enrollment rates in academia, and retention rates in practice



- There is an academic-practice gap between clinical and academic
- Sustainable clinical-academic partnerships can maximize learning for nurses and promote organizational growth
- Evidence-based literature offers feasible approaches for establishing and sustaining successful clinical-academic partnerships
- Nurse leaders play an instrumental role in creating shared resources - resulting in mutual benefit, influencing a shift in organizational culture




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## Approaches for establishing and sustaining clinical academic partnerships: A discursive review

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### Abstract

**Aims and objectives:** To discuss the need for a formalised structure that bridges the clinical and academic realms with concrete recommendations for programme development. **Background:** In the rapidly changing landscape of health care, nurses are challenged with the responsibility to engage in evidence-based practice, quality improvement and research projects. Clinical and academic partnerships play a vital role in fostering collaboration, mentorship and resources.

**Design:** Discursive paper.

**Method:** Searching international literature published between 2010–2020 in PubMed, CINAHL and Google Scholar, we explored the benefits, barriers and facilitators of clinical academic partnerships from the available evidence and professional perspectives from both sides of a clinical/academic collaboration.

**Discussion:** Evidence-based literature supports the establishment of partnerships schools of nursing and clinical institutions to improve patient outcomes and experiences and provide additional resources for improved research and practice capacity between both entities. Barriers to establishing clinical academic partnerships included lack of time, lack of formal collaborations and knowledge deficits. Facilitators included visible leadership endorsement, mentoring and modelling a culture of inquiry.

**Conclusions:** The establishment of formalised clinical academic partnerships can be used to develop continuing education programmes, promote engagement in nursing

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Thank you! Any questions?



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# Increasing Nursing Scholarship Through Dedicated Human Resources: Creating a Culture of Nursing Inquiry

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As the role of nursing grows in healthcare, the engagement of frontline nurses in evidence-based practice, quality improvement, and research is becoming the expectation and no longer the exception. Clinical nurses are in a unique position to inform and implement scholarly projects. The purpose of this staff development and capacity-building project was to increase the output of scholarly work among frontline nurses through the formalization of nursing inquiry support via designated nursing inquiry project coordinators.

Nationwide, hospitals are met with challenges related to increased volume of patient visits, extended lengths of stay, and readmissions, all contributing to patient quality and safety concerns. In this setting, frontline nurses encounter very complex patient problems on a daily basis, confounding the need for implementing evidence-based care through quality improvement (QI) and implementation science. Identifying gaps in practice and research enables nurses to address changes in the care environment and promote improved health

outcomes for patients, families, and communities.<sup>1</sup> Over the years, nurse leaders have exemplified the Quality Safety Education for Nurses competencies that urge nurses to use QI methodologies to design and test changes in patient care delivery and to continuously improve the quality of healthcare systems.<sup>2-4</sup> Moreover, in 2017, the American Academy of Nursing published a set of priorities that calls for nurse scientists to “transform and translate science to meet healthcare needs of individuals and populations.”<sup>5</sup> These endeavors are not limited to nurse scientists, but can also be carried out by frontline nurses, administrators, educators, and other clinicians using innovative approaches and models for leading evidence-based practice (EBP), QI, and research.<sup>6,7</sup> Nurses are qualified to engage and lead these types of inquiry with appropriate resources and organizational support.

Nursing inquiry is not a new concept. Dating back to the early 19th century, Florence Nightingale pioneered nursing research through her data collection, making the inference that poor living conditions contributed to death among the soldiers that she provided care for during the Crimean war. Early models for guiding QI date back to the 1960s with the development of the Donabedian framework, which provided a systematic approach for activities leading to improvement and measurable outcomes.<sup>2</sup> The concept of evidence-based medicine was introduced in the early 1990s in an article published in the *Journal of American Medical Association* and soon after was adapted in nursing practice. The innovation that is more recently known as EBP has become the criterion standard for integrating key findings from scientific literature to influence clinical problem solving and decision making and health outcomes.<sup>8</sup> In the last 20 years, nursing-led

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EBP models, such as the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model, the Iowa Model for Evidence-Based Practice to Promote Quality Care, the ACE Star Model of Knowledge of Transformation, and the Advancing Research and Clinical Practice Through Close Collaboration Model, have been developed and disseminated widely.<sup>9</sup> As the role of nursing grows in healthcare, the engagement of frontline nurses in EBP and clinical research should be the rule and no longer the exception.

Clinically practicing nurses are in a unique position to inform scholarly projects and implement them into practice. However, nurses face barriers to engagement in scholarship including lack of time, knowledge, and institutional leadership support. The barriers and facilitators for nurses participating in research, EBP, and QI have been well documented and described.<sup>10-12</sup> These include structural obstacles such as lack of time, lack of facilities or resources, and knowledge deficits including lack of training, lack of experience, and lack of confidence.<sup>10,13</sup> In this article, we will discuss the development and implementation of dedicated human resources to increase the capacity for nursing in a large emergency department (ED) to engage meaningfully in the 3 types of nursing inquiry; EBP, QI, and research.

## Methods

### Context

A capacity-building, staff development project was implemented to increase engagement in, and quality of, nursing inquiry and scholarly output among nurses. Through the formalization of support via designated nursing inquiry project coordinators, the project took place in an urban academic medical center's adult ED that employs approximately 100 full-time nurses. This ED has established partnerships with affiliate schools of nursing and public health as well as the department of emergency medicine's operations research group.

### Program Description

This initiative was one arm of a larger program to provide a framework to promote nursing engagement, development, and leadership opportunities in the department by formalizing a structure for inquiry, clinical practice, advocacy, and staff development activities. In August 2015, 2 nurses, 1 full-time clinical ED nurse, and 1 full-time school of nursing faculty member were given protected time to devote to scholarly activities in the department (8 and 4 hours per week, respectively). By establishing a nursing inquiry coordinator (clinical nurse) (see Supplemental Digital Content 1, <http://links.lww.com/JONA/A735>) and a clinical research mentor (faculty member) (see Supplemental Digital Content 2, <http://links.lww.com/>

JONA/A736), leadership formalized their support for nursing inquiry and created resources for frontline staff to participate in nursing scholarship. All nurses in the department were invited to utilize these resources. The inquiry nurses were available during scheduled office hours via email and in real time in the clinical setting. This model did not focus on building the capacity of the inquiry nurses, but rather cultivating interest and ability from the ground up with frontline nurses. Providing these resources created sustainable opportunities for clinical staff to begin relating their bedside practice to inquiry activities and create connections between patient care and underlying EBP, QI, and research concepts. Nurse-led projects included multidisciplinary, multidepartmental collaboration, including nurses within and external to the ED, physicians, nursing assistants, financial analysts, biostatisticians, and medical engineers. See Table 1 for examples of mentorship activities.

## Inquiry Modalities

### Evidence-Based Practice

Nurses play an essential role in implementing EBP projects that contribute to meeting standards and improving patient outcomes. The JHNEBP model was used to review and appraise relevant literature to guide changes in policy and practice. The JHNEBP model applies 3 critical components of professional nursing: (1) practice, (2) education, and (3) and translation to clinical practice.<sup>6,7</sup> The model was chosen for its user-friendly, team-focused tools. Projects included a patient-centered initiative to address the safety concerns related to patients with difficult venous access that resulted in practice change.

### Quality Improvement

Quality improvement projects were guided using rapid cycle Plan-Do-Study-Act (PDSA) framework for design, implementation, and evaluation. The PDSA framework consists of 4 consecutive steps in approach

**Table 1. Examples of Mentorship Activities**

Mentorship Activities
Scholarly inquiry workshops
Assistance with abstract preparation and submission
Tracking of scholarly projects and dissemination opportunities
Workshop for QI and EBP projects
Guidance on manuscript preparation, from structure to content
General editing, adherence to publication standards (eg, SQUIRE 2.0)
Assistance with scholarly poster design
Guidance on ethical review board requirements
Statistical support
Guidance on research methodologies
Improved communication with affiliate departments

QI.<sup>6</sup> Another QI model was the Lean Six Sigma, which was used for more recent projects after staff had acquired specific trainings and certifications. Quality improvement projects ranged from simple to complex problems focused on changing workflow to save time, improve efficiency, promote safety including patient-centered initiative to reduce door-to-electrocardiogram and door-to-balloon time, improve accurate weight measures for patients prescribed weight-based medications, increase the delivery of high-quality cardiopulmonary resuscitation, increase professional certification among ED nurses, and increase use of barcode medication scanning. The revised SQUIRE 2.0 (Standards for QQuality Improvement Reporting Excellence) guidelines reporting QI studies were used for project implementation and reporting of the outcomes.<sup>14</sup> Data for the projects were supported by the department's nurse informaticist to allow for continuous monitoring and benchmarking. Formal evaluation of QI projects included statistical analyses using SPSS data sets, to provide inferences and descriptive statistics. QI projects that required statistical analyses were double checked by an affiliate statistician to ensure accurate reporting of results.

### **Research**

During the 1st year, the emphasis on EBP and QI led to identifying gaps and generating research questions to be addressed as the inquiry program grew. Research pragmatic dissemination and implementation models informed project methodologies to guide translation of evidence from bench to bedside.<sup>15</sup> This approach leverages nurses' advanced knowledge of the clinical setting to translated evidence into real-world settings and within specific populations.<sup>15</sup> This focus coincided with the department of nursing research program's shift from primary research to implementation science. Collaborations were established by extending our team and networks beyond the institution, partnering with affiliate divisions.

The research team developed projects addressing setting-specific questions important to stakeholders, including patients, clinicians, leadership, and the community. The transdisciplinary teams for research projects included the patient and family advisory council, physicians, medical informaticists, engineers, financial analysts, and biostatisticians from the affiliate schools of nursing and public health to guide instrument development and predictive modeling. Statisticians and data management specialists reviewed data sets and applied appropriate statistical methods to answer research questions. All nurse-led research was developed and conducted under the supervision of PhD-prepared researchers to ensure rigor and ethics compliance, including submission to the institutional review board (IRB) applications for all nurse-led projects. This

foundational work has established an improved partnership between academia and practice.

### **System Support/Organizational Investment**

Organizational support was key for successfully implementing this culture shift. We utilized a variety of available institutional resources, including consultations from a nurse scientist from the research program, office of nursing professional practice, and leadership support from the office of the senior vice president for nursing for the health system, and medical informaticist from the hospital and university medical libraries. All team members completed IRB training, in preparation to serve in roles of principal investigator, coinvestigator, or study team coordinators and members. The department of emergency medicine and the affiliate school of nursing funded trainings in Lean Sigma, Six Sigma, and patient quality and safety continuing education courses. As a department of nursing priority, and in support of the strategic goals of the hospital, salary support was provided for the nursing inquiry coordinator and clinical research liaison at 10% and 20%, respectively, to buy out their time to lead projects. The ED-based leadership team also approved changes in schedules for frontline nurses to attend specialty-related conferences, workshops, and other professional meetings. Additional funding was provided for staff members to disseminate findings, which included conference registration fees, travel, and poster printing services. Dissemination funds were allocated from monies the department earns by hosting external visitors and presenting educational talks.

### **Program Evaluation**

The nursing inquiry coordinator and clinical research mentor reported progress and plans at nurse leadership meetings monthly. Projects were tracked and documented using an Excel spreadsheet, including current status, and scholarly outputs in categories such as workshops, grants, publications, IRB submissions, and presentations (departmental, hospital, state, national, and international). Scholarly outputs were regularly reported to the hospital-level office of nursing professional practice as well as the departmental operations workgroup.

### **Outcomes**

From September 1, 2015, to September 30, 2018, nursing inquiry activities greatly increased. Scholarly output for the department is displayed in Supplemental Digital Content 3 (<http://links.lww.com/JONA/A745>). Many frontline staff members who had not previously participated in inquiry projects or scholarly work became first-time presenters and authors, including bedside nurses and clinical nursing assistants. Prior to these formalized resources, scholarly output was not

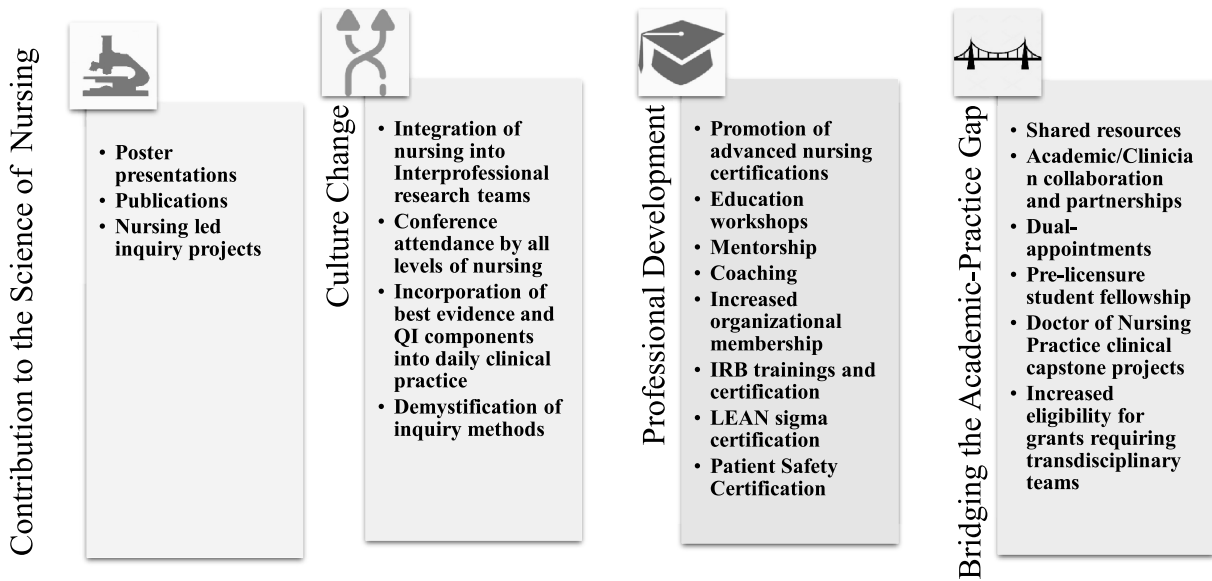


Figure 1. Description of activities.

rigorously tracked, but was primarily limited to those in leadership positions.

The nursing inquiry coordinator presented 3 external EBP education sessions, and the coordinator and mentor provided an educational workshop for frontline staff. Publications included a book chapter as well as peer-reviewed articles in scholarly journals specific to our specialty (nursing and nonnursing) and professional development (indexed impact factors 0.662-5.352). Grant and award submissions ranged from \$1000 to \$50 000. No grants were selected for funding. Institutional review board submissions were acknowledged or received expedited approval. Conference outputs included poster or podium presentations in departmental (n = 6), hospital (n = 27), state (n = 7), national (n = 23), and international (n = 13) settings. Examples of conference hosts include emergency nursing and nursing professional organizations, a global honor society hospital-based patient safety and scholarly nursing centers, and medical sponsors.

### Implications

Provision of mentorship has been continuously identified as a facilitator to EBP and research activities by clinical nurses. Our creation of dedicated, in situ nursing inquiry roles addressed barriers frontline nurses face (time, knowledge, leadership support deficits) and dramatically increased our department's scholarly output. These activities provided forged a path for nurses and the multidisciplinary team to incorporate best science into patient care based on our specific practice setting and workflows. This staff development project is an example of a concrete solution to sustainably engage nurses as local, national, and international

inquiry leaders to advance the science of nursing and provision of high-quality patient care.

The successes we have had in these efforts are similar to other programs that have sought to support nursing inquiry at the hospital level. Several studies support leveraging links between hospital settings and their academic counterparts.<sup>12,13,16,17</sup> Specifically, Cato and colleagues created joint appointments between a school of nursing and the hospital to increase nurse-led IRB protocols, as well as published articles and dissemination at local and national conferences.<sup>8</sup> While we saw similar success, in addition to nursing school connections, we included a nurse with a full-time clinical position in the department, which helped with real-time consults and firsthand knowledge of clinical processes and problems. In addition, rather than research, many of our efforts focused specifically on nursing QI and EBP, which tend to dominate the nursing inquiry landscape. This focus was especially important in moving projects forward with the appropriate frameworks and clarifying operational definitions.<sup>17</sup>

The increase in nursing dissemination at conferences (n = 76) and in publications (n = 9) tangibly contributed not only to the departmental activities, but also nursing science as a whole. By sharing best practices, nurses elevate and establish expert (generated from an individual's knowledge and experience) and referent powers (generated from the trust and respect of others).<sup>18</sup> As a world-renowned medical research institute, the outputs of our physician colleagues have historically dwarfed the scholarly efforts of clinical nurses, yet nursing's contribution to the state of the science is essential. Specifically, within our department, our biannual research showcase had not previously

included nurses as presenters or attendees. With the formalization of resources and the spike in QI, EBP, and research projects, nurse-led projects were highlighted in each showcase during the data collection period (n = 6). This contributed not only to patient- and staff-level outcomes, but helped create partnerships between physicians, nurses, and dedicated medical researchers, leading to an increase in inter-professional collaboration (Figure 1).

## Conclusion

Our nursing inquiry coordinator and clinical research mentor are ideally positioned to address clinical

problems by leading multidisciplinary teams and empowering frontline nurses to engage in EBP, QI, and research. Nurses serving in these mentorship roles can create an environment that fosters a culture of nursing inquiry while providing real-time instructions to increase the confidence, competency, and capacity of nursing to lead inquiry activities. While there are barriers and facilitators to the success of such a program, these successes are not departmental specific and can be applied regardless of care area. Future opportunities include developing comparative effective research, writing accountability group, and hosting a writing retreat.

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