



## Guest Editorial

## Quality and Safety Research: Recommendations From the Quality and Safety Education for Nursing (QSEN) Institute



The Quality and Safety Education for Nurses (QSEN) Institute is focused on uniting academia and practice to “Move the Mission” of delivering high quality, safe nursing care. The QSEN Institute provides resources to support a lifelong learning commitment to ensure that nurses work to improve care. In 2005 the Robert Wood Johnson Foundation provided initial funding to prepare all nurses with the knowledge, skills, and attitudes necessary to continuously improve the quality and safety of the healthcare systems in which they work. The QSEN founders recognized that schools of nursing need to better prepare nurses for these healthcare challenges and developed quality and safety competencies for undergraduate and graduate nurses and teaching resources to facilitate integration into existing curricula. The QSEN Institute has spread the mission to include nurses in both education and practice through an active website and an annual international conference and initiatives with other nursing organizations such as the National Council of State Boards of Nursing Residency programs, the Future of Nursing Model, nursing text books, and professional organizations, such as the Association of periOperative Registered Nurses.

Research on quality and safety education has expanded since the inception of the QSEN competencies. There have been several studies describing the diffusion of QSEN competencies into academic curricula; these include examining the extent of QSEN competency integration into pre-licensure curricula in New York state (Pollard et al., 2014) and the result of dissemination efforts in the San Francisco Bay area (Disch, Barnsteiner, & McGuinn, 2013). Perhaps the largest area of QSEN competency literature is in case studies and descriptions of how the competencies have been adopted. Most of these have been descriptions of how QSEN competencies have been integrated into undergraduate or pre-licensure education, with a few focused on graduate curricula. Fewer are descriptions of QSEN competencies being integrated into clinical practice settings. While these types of descriptive and case studies are useful to understand the breadth of QSEN competency use, they often lack an evaluative component. Other studies describe the integration of QSEN competencies, and provide narrative evaluation. These types of studies have been done primarily in pre-licensure nursing education programs.

One of the most useful streams of research to emerge around QSEN competencies is the development of evaluative instruments that have undergone psychometric testing. Such instruments include the QSEN Student Evaluation Survey (Sullivan, Hirst, & Cronenwett, 2009); the QSEN-based Clinical Evaluation Instrument (Altmiller, 2017); Healthcare Professionals Patient Safety Assessment Curriculum Survey (Chenot & Daniel, 2010); the Quality Improvement Knowledge, Skills, and Attitudes (QuISKA) instrument (Dycus & McKeon, 2009); and a

tool for preceptors and students to evaluate new graduates not yet in practice (Prion et al., 2015). These instruments have been tested and used almost exclusively in pre-licensure programs or to evaluate very recent Registered Nurse (RN) program graduates, although some, like the QuISKA, have been used to assess nurses in practice (Dycus & McKeon, 2009). Not all the QSEN pre-licensure competencies are included in the tools, and the knowledge, skills, and attitudes are conceptualized differently across tools.

For QSEN research to mature and advance, numerous key areas must be addressed. The first area is to expand research from primarily the undergraduate educational settings to the graduate level. Further, there is a dearth of research on QSEN competencies in post-licensure education such as in residency programs, orientation, and continuing education activities. Nursing practice is constantly evolving making it vital that nurses demonstrate competence in quality and safety. There are many ways that researchers can support this effort, including determining which QSEN competencies are most relevant for review and continuing education among practicing nurses and developing validated tools to assess practicing nurse knowledge, skill, and attitudes related to the QSEN competencies.

When examining the QSEN competency research landscape, it becomes evident that the research has occurred almost exclusively in the United States. The second key area is to expand QSEN research outside of the United States. This work could include determining the applicability of QSEN competencies to nursing practice in other countries; describing the diffusion of QSEN competencies into nursing education curricula and opportunities for their incorporation; and the potential for translation, adaptation, and application of QSEN competency assessment tools in other countries. The need for quality and safety education is not limited to the United States. The World Health Organization has published a *Patient Safety Education Guide* (World Health Organization, 2011), and countries including Australia and Canada have patient safety education frameworks (World Health Organization, 2011). As QSEN competencies are adopted in other countries, there will be a need for research to determine conceptual overlap and harmonization between QSEN and other frameworks and guides. These curricular frameworks can also inform future development of the QSEN competencies as they may contain competencies and domains that would be beneficial additions to the current QSEN framework.

A third key area for future research is in the use of implementation methods to integrate the QSEN competencies into both practice and academia. Implementation science provides models and strategies that can be used and tested to identify the most effective way to spread the competencies and measure the impact on practice. There is increasing awareness of the need for improved quality and safety competencies

in ambulatory, post-acute, and community and public health settings. The use of evidence-based implementation strategies will facilitate the integration.

Several psychometrically tested instruments have been created to address selected QSEN competencies. A fourth key area is to advance instrument development. There is a need to systematically examine across instruments which competencies have been included, how they were selected, and how they were interpreted into instrument items. This would allow an understanding of where the gaps are in our ability to measure specific competencies to guide future instrument development. Being able to measure the knowledge, skills, and attitudes associated with the competencies is crucial to determine the effectiveness of teaching strategies.

Lastly, QSEN competency research must extend to determining effects on organizational culture, nurse performance in practice, and patient outcomes. Specifically, QSEN competency research could address the impact of QSEN competency education and specific teaching strategies on components of organizational culture such as the nurse work environment, interprofessional teamwork, and patient safety culture. Further, there is a need to determine the effect of QSEN competency education and teaching strategies on differences in performance among nurses once they are in practice. Perhaps most critically, research must examine the impact of teaching QSEN competencies on patient outcomes, and specifically which competencies are most related to safety and quality outcomes and which teaching strategies are most effective.

As QSEN moves into its 12th year, educating pre-licensure and graduate nursing students, as well as nurses in clinical practice, is more important than ever. QSEN has worked to address the challenges of preparing future and current nurses with the knowledge, skills, and attitudes needed to continuously improve the quality and safety across the healthcare spectrum. To successfully achieve the QSEN vision of inspiring healthcare professionals to make quality and safety core values of their work, we need to have an evidence base of what works, why, where, and under what conditions. Diffusion, implementation, and evaluation of the QSEN competencies must be based on research evidence to move the needle on quality and safety.

## References

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