Guest Editorial

Quality and Safety Education for Nurses: Is It Time to Rethink Quality Improvement Knowledge, Skills, and Attitudes?

The media tell us. The literature tells us. Our friends and families tell us. Preventable errors continue to occur in health care organizations today. One well-documented contributing factor has been the call to reform curricula, not just in nursing but in all of health care, with the goal that all health care workers become active participants in reducing patients’ health care risks by possessing improvement knowledge, skills, and attitudes (KSAs), as outlined in the quality improvement (QI) Quality and Safety Education for Nurses (QSEN; http://www.qsen.org) project competency.

Health care professionals must have the skills to recognize the need for process improvement, to identify an appropriate intervention, and to evaluate outcomes from tests of change. From an organizational perspective, it is common to read mission statements that speak to high quality care, commitment to excellence, and patient satisfaction. Clearly, it’s all about quality. But how can quality be realized if health care professionals do not possess the necessary QI KSAs?

Approximately 1 year ago, we were finalizing our book chapters, as guest editors, for the first nursing text addressing the QSEN competencies, Introduction to Quality and Safety Education for Nurses (Kelly, Vottero, & Christie-McAuliffe, 2014). Much of the reviewer feedback was that the QI content we drafted was too advanced, yet we followed the prelicensure QI KSAs in developing the content. Throughout our revisions, we debated and agreed to disagree at times what constituted introductory QI KSAs. Because we are both working in “quality” positions, our views are based on the perceptions of what organizations need and expect from new nurses. In fact, we had more than our fair share of healthy discussions regarding control charts! The reality is that new nurses are not expected to create or analyze control charts. As we continued to edit, many more questions came to light that hovered around academic versus organizational expectations. If, indeed, academics believe all the QI KSAs are introductory, are new nurses translating these QI KSAs on entry to practice? Should they be? It’s been said that “In theory, theory and practice are the same. In practice, they are not.” We hope this guest editorial will help to address that gap.

Involvement with a nurse residency program verified how new nurses could readily speak to the relationship between practice (e.g., hand hygiene) and risk (e.g., hospital-acquired infections). But they often struggled with the next steps: how to analyze data to make improvement decisions; if improvement was warranted, how to implement a small test of change; and how to measure that change to assess effectiveness. This gap was problematic and generalizable, regardless of undergraduate program. In talking with new nurses, they reported very little to no time spent on data analysis or even basic improvement methods, such as Plan-Do-Study-Act (PDSA) during their learning experiences. It was necessary to spend significant residency time on improvement methodologies before new nurse residents could tackle their required project.

What the new nurse residents reported has been supported in the literature. QI and teamwork and collaboration are the two QSEN competencies lagging integration within curricula (Barnsteiner et al., 2013). Barnsteiner et al. (2013) provided some explanation: faculty themselves lack the QI KSAs that are necessary to teach QI, and our current clinical education practices tend not to provide interprofessional opportunities. From a QI perspective, QI KSAs are extremely complex. In fact, most health care professionals practicing today have had little training on how to analyze data or design tests of change without significant coaching. Even some quality departments may not have adequate or skilled staff or software to coach frontline staff through improvement activities. Although some schools are providing creative QSEN integration models, and simulation can provide some opportunity to address the QI KSAs, we are faced with an important question: Is it realistic for new nurses to have full command of the QI KSAs upon graduation? More importantly, will new nurses need the current QI KSAs to meet organizational expectations?

Classroom environments may be conducive for the knowledge component of the QI competency, but even that is limited. However, there are precursors to improvement activities that lend themselves to classroom settings, such as regulatory requirements, accreditation, and how improvements are made within organizations. At one time, “improvement work” was the responsibility of quality management departments. Those days are pretty much gone! Because the emphasis is on evaluating existing processes, improving them, and making them safer, in creating “safer” new processes, organizations now promote full involvement of frontline staff. Who better than the staff who do the work to be part of the discussion identifying the problems, sharing ideas about how to mitigate them, and knowing how to evaluate those improvement outcomes? Frontline staff involved in organizational improvements require some of the QI KSAs and teamwork and collaboration competencies, given that...
health care processes are complex and typically include interprofessional coordination and support services. That said, the question still remains: Which QI KSAs are essential, or at least sufficient, for newly graduated nurses to have?

Clearly, QSEN has provided a sound foundation to better prepare new nurses for what they will face in practice. But, as with all processes, it is necessary to re-evaluate and revise QSEN for continuous improvement. Melnyk (2013) differentiated Doctor of Nursing Practice (DNP) and Doctor of Philosophy (PhD) roles and training. The article by Melnyk suggests that QI KSAs may need to be transformed, and that perhaps all of the six QSEN competencies need to be redefined as the role of the DNP becomes more prominent within organizations. Melnyk identified the DNP graduate as the evidenced-based practice (EBP) expert, the translator of research into clinical practice, and facilitator of QI and EPB projects. If indeed this is true, are we expecting too much from newly graduated nurses and leaving the DNP graduate out of the ownership for some, perhaps most, of those QI KSAs?

We might argue that a novice nurse should first and foremost be focused on learning how best to care for patients, and that organizations do not expect them to redesign systems or conduct independent tests of change, at least not initially.

We propose rethinking the QSEN competencies using Benner’s novice-to-expert model (1984). Is there opportunity to redefine the new graduate QI KSAs as those KSAs that a novice should have? What are the KSAs needed by a new advanced practice nurse (advanced beginner)? Is there a third level of QSEN needed—the DNP-prepared nurse—who should become the competent and proficient expert in QI KSAs?

In considering the novice nurse, we think several key QI KSAs are necessary for entry into practice. The new nurse needs to understand basic improvement cycles and methodologies and have participated in a test of change and measurement. To do this, rethinking both curriculum and clinical experiences will need to be addressed. We must partner with our health care colleagues to address the QI KSAs learning opportunities within the organizations where students are placed. This will allow novice nurses the opportunity to witness and participate in real-world, real-time improvements.

Health care organizations have QI experts, are following accrediting body and regulatory requirements, have real-time data, and utilize interprofessional improvement teams conducting small tests of change and larger, more systematic redesign projects that impact the organization. Partnering with those improvement leaders and providing students’ access to their tools and techniques accomplishes another QSEN competency—interprofessional teamwork and collaboration.

We propose that foundational concepts be presented in the classroom but their associated skills be learned in the clinical setting. We also appreciate that QI concepts should be presented based on the complexity and the level of student, such as:

1. **Beginning:** Explain the influence of regulatory requirements (e.g., The Joint Commission, Center for Medicare and Medicaid Services: value-based purchasing measures) on the delivery of patient care. Review requirements, prior results, actions taken for improvement, and effectiveness of those actions.
2. **Progressing:** Describe basic improvement methodologies (e.g., PDSA). Review completed projects identifying necessary elements and observe a current ongoing improvement project.
3. **Graduating:** Articulate the importance of measurement, data analysis, and benchmarking for improvement as it relates to health care systems. Assume an active team member role (e.g., data collection, literature review).

As residency programs become more mainstream, such programs can build on improvement work learned as undergraduates, with the residents conducting their own projects through mentoring by advanced practice, DNP, or improvement specialist nurses. As students or residents observe and participate on improvement teams, it will allow them to experience how systems and processes are measured and how data are collected, analyzed, and used as outcomes evidence. They will learn the steps of improvement, such as the development of problem statements, goal setting, interventions, evaluation, and comparisons with best practices. We also propose that the Commission on Collegiate Nursing Education (2008), which accredits postbaccalaureate nurse residency programs, reconsider its current position that accreditation be dependent on residents developing only EBP projects and not QI projects. We think that both EBP and QI are critical for organizational success, that both should be valued, and that residents should be exposed to both. In fact, quality and performance improvement activities are requirements for organizational accreditation (The Joint Commission, 2014).

Such changes can help to close the gap between theory and practice, as well as between academic and organizational expectations, providing a smoother transition for new nurses, and helping organizations meet their commitment to provide safe, high-quality care, improve patient satisfaction, and achieve desired health outcomes.

**References**


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The authors have disclosed no potential conflicts of interest, financial or otherwise. doi:10.3928/01484834-20141022-10