Integration of quality and safety competencies in undergraduate nursing education: A faculty development approach

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Abstract Graduate nursing competencies in quality and patient safety should be integrated into theoretical and experiential learning using active, student-centered methodologies, and threaded through multiple nursing courses. A series of workshops designed to provide quality and safety content and innovative teaching techniques to faculty based on goals of the Quality and Safety Education for Nurses (QSEN) Faculty Development Institute were developed. Post-workshop survey results found a significant self-reported change in course design with a focus on the integration of QSEN competencies.
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1. Introduction

Health care in the United States is not as safe as it should be. Reports from the Institute of Medicine (IOM; 2001) and *To Err is Human* (Kohn, Corrigan, & Donaldson, 2000) presented staggering statistics regarding loss related to medical errors and failure to rescue. According to the IOM, more than 98,000 people die each year specifically because of medical errors (Kohn et al., 2000). As a result, initiatives such as National Patient Safety Goals, Rapid Response Teams, and Quality Measures have become national initiatives to improve patient outcomes. It has become so important that nurse educators are looking to start the discussion long before graduation.

Ensuring quality and safety for patients is essential to nursing practice. The foundation for these changes begins with health care education, in particular, strengthening undergraduate nursing curricula to provide students with the knowledge, skills, and attitudes needed to practice within

the existing health care system. Nursing programs must ensure that graduate competencies in quality and patient safety are sufficient to meet practice needs. These competencies should be integrated into theoretical and experiential learning using active, student-centered methodologies. In addition, students need to develop competencies over time, threaded through multiple courses in the nursing curricula (Brady, 2011).

One of the most important factors in integrating Quality and Safety Education for Nurses (QSEN) competencies across the curriculum is faculty willingness to attain the knowledge and skills needed to advance quality and safety concepts within their courses (Lewis & Lamb, 2011). Currently, many nursing programs teach quality and safety concepts toward the end of their programs in senior capstone courses. The result is that many faculty teaching fundamental courses are unfamiliar with the QSEN competencies (Armstrong & Barton, 2013). A national Delphi study found that QSEN knowledge, skills, and attitudes should be introduced in the beginning of the nursing curriculum using a developmental approach assuring movement to intermediate and advanced levels of competency (Barton, Armstrong, Preheim, Gelmon, & Andrus, 2009). This finding

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highlights the need for faculty development to increase knowledge and skill in the areas of safety and quality improvement (QI). Successful integration of QSEN competencies across the curriculum may lead to improved student learning outcomes and safe, competent practitioners.

To effectively integrate quality and patient safety competencies into our prelicensure nursing program, the authors attended the QSEN Faculty Development Institute with the purpose of acquiring the knowledge, materials, and resources needed to educate, mentor, and inspire students and faculty about quality and safety in health care. A series of monthly workshops were conducted for faculty explaining the QSEN competencies, discussing methods of integrating these competencies across the curriculum, and identifying resources and activities that can be used in the classroom, simulation, and clinical settings. The goal of these workshops was to provide faculty with a plan for course design that reflects the application of the QSEN competencies as well as the requisite prelicensure knowledge, skills, and attitudes for each competency.

An informal survey was conducted with 17 nursing faculty to assess the incorporation of QSEN competencies into the nursing curricula both before and after workshop (see Table 1). In addition, the survey allowed for faculty to include comments related to competency integration in their courses. Institutional review board approval was obtained for this research.

Results of the survey indicated that before workshop, some faculty had difficulty identifying specific assignments, clinical activities, or course objectives that addressed the competencies of patient-centered care, teamwork and collaboration, informatics, safety, QI, and evidence-based practice (EBP) within their courses. On the basis of information and resources from the QSEN Faculty Development Institute, electronic slide presentations, YouTube videos, evidence-based articles, and innovative teaching strategies were presented in monthly faculty workshops.

Each month, one QSEN competency was presented in a faculty-centered, interactive format. Workshops began with the definition and key message for the competency followed by information about resources and recommendations for innovative teaching strategies to promote quality and safety content throughout the curricula. In addition to the electronic slide information, active learning strategies were used to engage the

faculty at each session. Time was allotted for discussion and questions and answers to clarify the material presented.

The workshop on EBP included the role of evidence, defining a problem and creating a research question, levels of evidence, sources of knowledge, dissemination of knowledge, and teaching strategies. Presentation and navigation of databases such as the Johanna Briggs Institute and the Cochrane Institute were a focus of the workshop.

Faculty attending the patient-centered care workshop were asked to participate in a role-play exercise designed to demonstrate the importance of being able to break cultural, generational, and health literacy barriers to provide effective patient-centered care. Another activity focused on cultural awareness designed to foster appreciation of generational differences among health care professionals through the use of health care-related terms. In addition, a YouTube video using humor to explain generational differences was shown.

To begin the safety workshop, a video of the Tenerife airport disaster was shown to highlight the dangers of ineffective communication. Faculty were also given Situation Background Assessment Recommendation activities based on critical medical emergencies where proper communication was essential to save the life of the patient. The QSEN Web site was explored for activities related to safety such as the Quality and Safety Checklist assignment and Medication Reconciliation Activity.

Movie clips from "Apollo 13" and "Drum Line" were used to emphasize the importance of teamwork and collaboration, as well as the consequences of not working as a team. American Association of Critical-Care Nurses' Core Competencies for Interprofessional Collaborative Practice (Interprofessional Education Collaborative Expert Panel, 2011) were presented to faculty, highlighting the importance of nursing students as part of the interprofessional health care team.

The informatics workshop focused on the use of electronic health records (EHRs) in the health care setting. The nursing department's EHR was reviewed, and opportunities for incorporating this technology in the nursing skills lab, simulation, lab and clinical setting were presented. A data mining activity from the QSEN Web site resources was shared with faculty as a method to emphasize to students the importance of informatics in the clinical setting.

A root cause analysis was the focus of the QI workshop. Faculty were given a case scenario based on a clinical situation where numerous system breakdowns occurred. A fishbone diagram was used to explore reasons for these systematic failures leading to a discussion of possible solutions to prevent recurrence of identified errors.

2. Results

A postworkshop survey was administered to nursing faculty after 1 year to determine the self-reported integration of QSEN competencies into the curricula. Survey results indicated an increase in the number of faculty reporting

Table 1 Comparison of competency integration before and after workshop

Competency	Before workshop (n = 17)	After workshop (n = 17)	% Change
QI	4	15	64
Safety	15	17	12
EPB	8	16	47
Teamwork/ collaboration	5	12	42
Patient-centered care	13	15	12
Informatics	4	9	29