Assessing Nursing Students’ Perceptions of the QSEN Competencies: A Systematic Review of the Literature

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Disclosure

Both authors do not have any conflicts of interest to declare
Background

- Health Professions Education: A Bridge to Quality (IOM, 2003)

- Quality and Safety Education for Nurses (QSEN) initiative (Cronnenwett et al., 2007; QSEN Institute, n.d.)

- QSEN competencies
  - IOM’s 5 core competencies and safety

*The figures are adopted from IOM (2003, p.46) and QSEN.ORG*
Background

Nursing leaders and faculty research about QSEN Competencies

- First national nursing survey (Smith et al., 2007)
- 8 regional Faculty Development Institutes (Barnsteiner et al., 2013; Bryer & Peterson-Graziose, 2014; Disch et al., 2013)
- Most recent national faculty survey (Altmiller & Armstrong, 2017)

Integration of the QSEN content in nursing education to ensure future nurses graduating with KSAs related to all six QSEN competencies

No reviews in the literature evaluating student nurses’ perceptions of their KSAs regarding all six QSEN competencies
Purpose

The purposes of this systematic review were twofold:

1. To evaluate the research about undergraduate nursing students’ perceptions of their KSAs within the six QSEN competencies

2. To determine the outcomes related to integrating the QSEN content into undergraduate nursing courses, clinical placements, or simulation experiences.
Method

**Design:** Systematic review of the literature

**Search Strategy**
- Four databases: CINAHL, PubMed, ERIC, and the Web of Science
- Search terms: Quality and Safety Education for Nurses, QSEN, QSEN competencies, nursing student, and student nurses

**Selection Criteria**
- Original peer-reviewed research published in English
- Senior nursing students as the study sample
- Assessing students’ perceptions of KSAs within all six QSEN competencies
Method

Study Selection (work on this)
- 671 potentially relevant papers (213 duplicates)
- 458 remaining papers reviewed (titles and abstracts)
- 109 articles were selected for full-text screening (73 excluded)
- 36 remaining articles further assessed (29 excluded)
- 7 studies included in systematic review

Quality Assessment
- Rapid Critical Appraisal Checklist (Melynk & Fineout-Overholt, 2019)
- Overall quality and level of evidence
- Both authors
Findings

Characteristics of Included Studies

- 7 studies included; 4 descriptive, cross sectional*, 1 quasi-experimental (Piscotty et al., 2011), 2 mixed-methods [quasi-experimental] (Lindemulder et al., 2018; Miller & LaFramboise, 2009)

- All but one conducted in the U.S.

- Participants from one to 17 schools (Peterson-Graziose & Bryer, 2017; Sullivan et al., 2009)

- Most commonly used instrument- QSEN SES developed by Sullivan et al. (2009)

- All studies but one were found to be low quality

*(Lee et al., 2016; Mennenga et al., 2015; Peterson-Graziose & Bryer, 2017; Sullivan et al., 2009)
Findings

Perceptions of Knowledge, Skills, and Attitudes within the Six QSEN Competencies

- 4 descriptive, cross sectional (Lee et al., 2016; Mennenga et al., 2015; Peterson-Graziose & Bryer, 2017; Sullivan et al., 2009)

- Most frequent topics covered within patient-centered care competency

- The least frequently covered topics belonged to quality improvement competency-24% indicated…

- Sources of knowledge about QSEN content (classroom settings, course assignments, clinical experiences, and lab or simulations)
Findings

Perceptions of Knowledge, Skills, and Attitudes within Six QSEN Competencies

- Students reported they were somewhat prepared to perform all QSEN competency (Mennenga et al., 2015; Peterson-Graziose & Bryer, 2017; Sullivan et al., 2009)
- Least prepared in skills related to quality improvement, most prepared in patient-centered care and informatics.
- Comparisons by program type (generic vs RN-BSN)
- Skills from all six QSEN competencies perceived to be very important: Quality improvement perceived to be the least important in six QSEN competencies.
Findings

The Effect of Integrating QSEN Content into Courses and Simulations

- A student-designed simulation with QSEN content integrated: Significant improvements in knowledge and skills (Piscotty et al., 2011).

- QSEN-based end-of-life simulation: Significant improvements in teamwork and collaboration, evidence-based practice, and quality improvement (Lindemulder et al., 2018)

- QSEN-based critical care course: No significant improvements (Miller & Laframboise, 2009)
Discussion

- Expectation is that all students must be graduating with full spectrum of QSEN competencies
- Findings that are congruent with nursing faculty research (Smith et al., 2007; Altmiller & Armstrong, 2017)
- The lack of exposure to the quality improvement content in nursing education
- Kovner and colleagues’ (2010) study of newly registered nurses.
Discussion

- Evidence-based practice competency
  - The study of 2300 practicing nurses (Melynk et al., 2018)

- Experimental studies integrating QSEN content
  - Different delivery methods
  - Issues with quality and methodological rigor
  - Critical thinking benefit of learning the QSEN competencies

- Teaching the QSEN competencies (Cronenwett et al., 2007)
Limitations

- Only 7 studies; all six QSEN competencies were required
- Issues with the quality and methodological rigor of individual studies
  - Small sample size
  - Use of convenience sampling
  - Lack of valid and reliable instruments in experimental studies
- Findings are limited to the U.S. context
Implications

- Ensuring the integration of all six QSEN competencies in their curricula
- The need for greater emphasis about quality improvement competency in pre-licensure education
- Use of classroom content, clinical education, simulations, reflective papers, and case studies to teach the QSEN competencies
- More research is needed to assess students’ knowledge and skills of QSEN competencies (with attention to quality and rigor)
References


