

# Quality Improvement in Undergraduate Nursing Education:

## Does taking an undergraduate course in quality and safety education impact nursing students' safety perceptions?

Martie Dobbs, RN MScN, Senior Instructor, Faculty of Nursing, University of Calgary

### Background and Context

Given that patient safety is a national and provincial priority, it is incumbent on all health care providers, organizations, and governments to create cultures of safety that support safe practices for both patients and staff.<sup>1</sup>

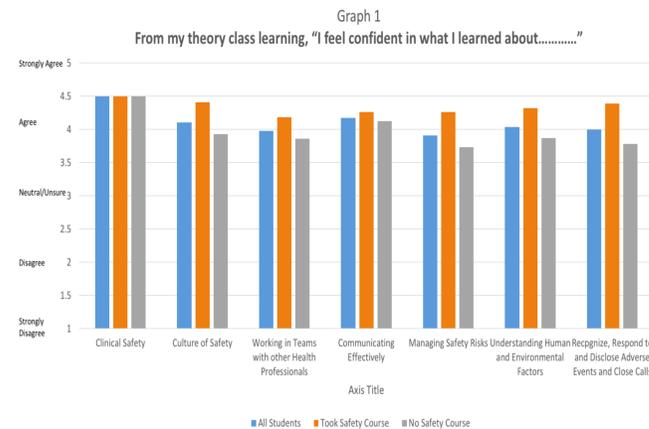
Over the past decade there has been a call for health profession programs to update curricula to ensure quality and safety competencies are well represented.<sup>2 3 4 5</sup> While many schools are heeding this call, it is also important to evaluate these changes.

With the implementation of a new nursing curriculum in 2010 at the University of Calgary, an elective course was developed entitled System and Patient Safety. Approximately 20 percent of nursing students take this elective. Course feedback consistently shows that the course is well liked. Students comment that the course should be required and that it has changed their practice in terms of recognizing safety and quality issues from a systems perspective. This anecdotal information provided the impetus for additional evaluation and the quality improvement project that follows.

### The Project

With feedback from the students as ammunition, I wondered if the safety course should be a core course in the nursing curriculum rather than an elective. I wondered if those without the course were graduating lacking key knowledge, skills and abilities consistent with creating and enacting a culture of safety.

To evaluate differences in student perspective of patient safety competencies between students who had completed the elective safety course and those who had not, the Health Professional Education in Patient Safety Survey (H-PEPSS)<sup>3</sup> was administered to students in their final term of the nursing program (n=123) and/or who had recently graduated in December 2015 (n=23).



### Results

All students reported feeling confident about learning re: key safety competencies in classroom/theory classes (Graph 1):

Learners who took the safety course rated their confidence as slightly higher in the following sub categories:

Recognizing, Responding to and Disclosing Adverse Events -relative to recognizing adverse events and disclosing to the client

Managing Safety Risks-relative to identifying and implementing safety solutions

Culture of Safety-relative to nature of systems and system failures and their role in adverse events

**Other significant results (Graph 2):**

92% of students who took the safety elective agreed that reporting adverse can lead to change and reduce reoccurrence. 76% of students who did not take the elective indicated this

67% of students who took the safety elective agreed they feel safe approaching someone engaging in unsafe care practices. 36% of students who did not take the elective indicated this

**Qualitative themes:**

Students learn safety content through a combination of learning opportunities

Increased confidence noted managing unsafe situations after taking the safety elective

Students would like more safety content integrated into the program

### Methods

Convenience sample of nursing students (n=146) in final term of the nursing program or recently graduates. 86 respondents (30 had taken the System and Patient Safety elective in either May 2015 or September 2015 and 56 students had selected an alternate elective).

H-PEPSS survey tool was completed online (n=28) or on paper (n=57).

The H-PEPSS tests a broad spectrum of patient safety competencies using nursing students' self-reported perceptions.<sup>7</sup> It has been found to have an internal consistency exceeding .80.<sup>6</sup>

H-PEPSS includes a 5 point Likert scale that reports perceived level of competence. Three open ended questions were added to gather qualitative data.

### Acknowledgements

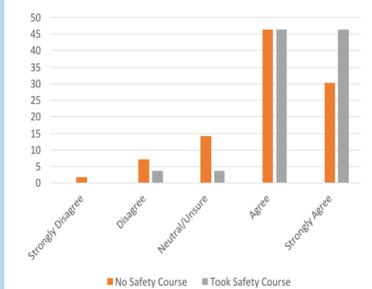
Thanks to Kathleen Douglas-England and Margot Harvie

### References

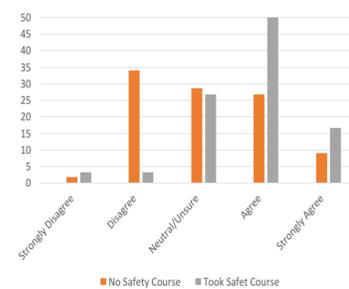
1. Registered Nurses Association of Ontario. (2004). *Policy statement on patient safety*. Retrieved from <http://rnao.ca/policy/position-statements/patient-safety>
2. Canadian Patient Safety Institute. (2009). *The safety competencies. First edition*. Retrieved from <http://www.patientsafetyinstitute.ca/en/toolsResources/safetyCompetencies/Documents/Safety%20Competencies.pdf>
3. Ginsburg, L., Castel, E., Tregunno, D. & Norton, P.G. (2012). The H-PEPSS: An instrument to measure health professionals' perceptions of patient safety competence at entry into practice. *BMJ Quality and Safety*. doi: 10.1136/bmjqs-2011-000601
4. National Council of State Boards of Nursing. (2010). *Leader to leader: Quality and safety education for nurses update*. Retrieved from [https://www.ncsbn.org/L2L\\_Fall2010.pdf](https://www.ncsbn.org/L2L_Fall2010.pdf)
5. World Health Organization. (2009). *WHO patient safety curriculum guide for medical schools*. Retrieved from [http://whqlibdoc.who.int/publications/2009/9789241598316\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241598316_eng.pdf)
6. Duhn, L., Karp, S., Oni, O., Edge, D., Ginsburg, L. & VanDerkhof, E. (2012). Perspectives on patient safety among undergraduate nursing students. *Journal of Nursing Education*. doi: 10.3928/01484834-20120706-04
7. Ginsburg, L., Tregunno, D. & Norton, P.G. (2013). Self-reported patient safety competence among new graduates in medicine, nursing and pharmacy. *Quality and Safety in Health Care*. doi: 10.1136/bmjqs-2012-001308

### Graph 2 Student Perceptions of Safety Concepts

I gained a solid understanding that reporting adverse events and close calls can lead to change and can reduce reoccurrence of events



If I see someone engaging in unsafe care practices in the clinical setting, I feel safe to approach them



### Discussion

It is difficult to determine if differences between groups exist solely from taking the safety elective. Given the variety of clinical placements and course instructors experienced for theory and practice, it is probable that students are exposed to safety content in variable ways across the curriculum.

It is interesting to note that approx. 39% of students regardless of taking the safety elective felt reporting safety problems in the clinical setting would result in negative repercussions for the person reporting it. This reinforces beliefs around the need for improving safety cultures in our hospitals and increasing understanding of the purpose for safety reporting.

This project is limited by the small sample size and difficulty in isolating variables that cannot be controlled for during the educational experience. These findings need further discussion at the curriculum planning level. It would be important to scan across all nursing courses to track where safety content may also be taught. It is encouraging that the majority of student's report feeling confident regarding knowledge acquisition relative to safety in the nursing program but it remains important to ensure consistency in learning experiences and outcomes such that differences between groups are addressed in a purposeful manner.

