

## Leadership Connection 2018 (15-18 September)

### From the Students Perspective: Analysis of Graduate Students Quality Improvement Learning Outcomes Using Reflective Strategies

**Madison Grace McCauley, SN**

*College of Nursing, East Carolina University, Greenville, NC, USA*

#### Abstract

Title: From the Students Perspective: Analysis of Graduate Students Quality Improvement (QI) Learning Outcomes Using Reflective Strategies

Madison McCauley

One of the greatest challenges in healthcare today is transforming the delivery system to improve patient safety. Practicing registered nurses are expected to conduct quality improvement change activities, however the literature states there are few opportunities for RNs to learn about QI methods in school or at the workplace (Maxwell, Wright, 2016; Kovner, Brewer, Yingrengreung, Fairchild, 2010). Quality Improvement is a subject being slowly integrated into curricula of many graduate level nursing programs; yet there are inconsistencies among faculty related to achievable objectives, teaching methods, and student measurement of learning outcomes in schools nationwide. This dilemma can be attributed to the lack of faculty preparation in teaching QI principles, change management, team science, and conducting QI tools application during change projects.

Some nursing programs have been incorporating the Quality and Safety Education in Nursing (QSEN) guidelines into their curriculums to improve students' ability to promote safety in health care settings using a systems-level approach. Also, QI activities are to challenge current ineffective agency policies by conducting change projects and evaluating their outcomes. Hamrin et al. (2016) believes that "As more nursing programs implement QI assignments and their results are published, nurses will have more knowledge and expertise on systems-level changes" (p. 209). By leading QI change projects, graduate level nurses will be able to graduate with the knowledge on how to expand patient safety measures, advance agency policy, increase patient education and adherence, and extend access to health care (Hamrin et al., 2016).

The purpose of this study is to provide learning outcomes survey analysis of thirty or more graduate nursing students who completed a separate graduate QI course in which the students completed a successful change project within a health system. The volunteer participants were from the Master of Science in Nursing Leadership program who successfully completed the QI course that incorporated the application of the Dartmouth Microsystems Framework that included the Plan Do Act Study Process (Dartmouth Microsystems Academy, 2018). The Dartmouth Microsystems framework is centered around the belief clinical microsystems operate when health care providers come together as a team to accomplish the goal of improving patient outcomes in a subset of patients or processes; According to Micheal et al. (2013), it functions by: "Four key principles for improving the performance of all microsystems are fundamental to the framework: (a) engagement of everyone in the microsystem in continuous process and work improvement, (b) intelligent use of data, (c) establishment of an intimate understanding of the needs of patients served by the microsystem, and (d) development and maintenance of positive and productive connections with other related microsystems" (p. 51).

To measure the students' perceptions and skills acquisition, an established learning survey tool, Preparation and Usefulness of QI Topics from Nursing Education Program (Kovner, Brewer, Yingrengreung, & Fairchild, 2010) was modified after authors gave permission to utilize their tool. The survey was distributed to current students and alumni via email. The study's research questions included: 1) Were the students able to apply QI principles and tools application from the course leading to a

successful finished change project?; 2) Did the course provide useful and valuable knowledge during the QI course?; and 3) What did the students learn about QI tool application during their QI change projects?; 4) Did the students reflect positively regarding the teaching methods that culminated in a successful end of course change project? ; and 5) Did the Dartmouth Microsystems Framework provide an easy to follow process to conduct a change project?

The Institutional Review Board (IRB) process was conducted and approved. Participant's volunteer consent forms were processed. Modification of the survey and insertion into Qualtrics Survey format was accomplished. The respondents survey information will be identified by utilizing a sequential coding system to ensure no personal identifiers are visible and protected. Data collection from the Qualtrics Survey will be uploaded into the statistical software called SPSS 24.

It is anticipated that this study will yield a positive relationship between the use of Dartmouth Microsystems framework teaching methods and the participants perceived learning outcomes from the course. MSN programs are designed to produce graduates with the knowledge and initiative to make QI system level changes within their workplace (AACN, 2011). Nursing faculty who provide experiential learning combined with didactics and an emphasis on focused quality improvement competencies, could provide practicing RNs with graduate degrees the needed skills to improve individual and population health and patient care delivery. Lastly, we are hopeful to find students' change projects are still active in health care systems today and they are still applying in their clinical practice what they learned in the QI course.

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**Keywords:**

Dartmouth Microsystems, Nursing Education and Quality Improvement

**References:**

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#### **Abstract Summary:**

Practicing nurses are expected to conduct quality improvement change activities, however the literature cites there are few opportunities for RNs to learn about QI methods in school or at the workplace. This study will provide learning outcomes survey analysis of thirty graduate nursing students who completed a separate QI course.

#### **Content Outline:**

1. Limited literature about teaching Graduate Nursing QI Methods in a focused course.
2. Dartmouth Microsystems Framework fosters Graduate Students QI knowledge and skills.
3. Graduate students (30) learning survey analysis of perceptions of usefulness, value, knowledge related to QI principles and tools.

First Primary Presenting Author

#### **Primary Presenting Author**

Madison Grace McCauley, SN  
East Carolina University  
College of Nursing  
Student Nurse  
Greenville NC  
USA

**Professional Experience:** Completed 18 hours of modules to receive the Institute for Healthcare (IHI) Improvement Patient Safety and Quality Improvement (QI) Certificate. She is a research scholar for the

East Carolina University's Honors College.

**Author Summary:** Madison McCauley, BSN student at East Carolina University's College of Nursing in North Carolina. She is a Research Scholar with the Honors College completing her Honors project with D. Lake, PhD RN. Completed the Institute for Healthcare (IHI) Improvement Patient Safety Certificate (18 hours). Participated in the ECU Chapter, IHI Open School & Patient Safety learning forums with Nursing, Medical, and Dental students. Madison's leadership experience includes being an evaluator for her Sorority's Scholarship Board.