Does a Modified TeamSTEPPS® Online Educational Intervention Change Nursing Students’ Attitudes?

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Are RN to BSN students prepared for today’s challenging healthcare environment? There is a great need to better educate nursing students on teamwork and patient safety because they will play a vital role as they transition to bachelor prepared nursing professionals. Students need to learn the value of teamwork (NACNEP, 2015), and often have limited exposure to such. Ineffective teamwork and poor communication in healthcare have contributed to many patient medical errors (Kohn et al., 1999; TJC, 2015). There are many initiatives that support these necessary components for clinical practice such as The Essentials of a Baccalaureate Education (AACN, 2008) which includes Scholarship of EBP and Interprofessional Communication and Collaboration. The Quality and Safety Education in Nursing (QSEN) Institute has developed and promoted Teamwork and Collaboration, Safety, and EBP as key competencies (2014). The Future of Nursing Report issued by the Institute of Medicine (IOM) in 2010, stressed the need for nurses to achieve competency in the areas of teamwork, communication, leadership, and EBP. Yearly, The Joint Commission (2015) produces the National Patient Safety Goals and the area of communication is the most frequent goal due to its contribution to patient medical errors. With many of these educational initiatives only occurring during the past decade, the attitudes and knowledge of nursing students regarding teamwork, communication, and patient safety have not been well studied yet. Therefore, exploring an innovative, evidence-based teamwork and communication program for online RN to BSN students is overdue.

Team Strategies and Tools to Enhance Performance and Patient Safety, otherwise called TeamSTEPPS® (King et al., 2008) is an evidence based practice, patient safety program created for the healthcare setting. Originally, this was based upon several decades of safety and teamwork research originating from both the airline industry and US military. Following a joint venture in 2006, the Agency for Healthcare Research and Quality (AHRQ) and the Department of Defense tailored the program for all healthcare professionals in the clinical setting and have paved the way as leaders in the patient safety movement (King et al). TeamSTEPPS® promotes the use of standardized communication tools including five key competencies: communication, leadership, team structure, mutual support, and situation monitoring that are necessary for improved patient care outcomes (King et al.). Currently, there are training modules available for acute care, office based care, long term care, and dental care (AHRQ, 2016), however not for the academic setting for students. The purpose of this pilot study is to implement a modified TeamSTEPPS® educational intervention to measure nursing students’ attitudes regarding patient safety and teamwork.

There are many studies in the literature supporting the positive outcomes of the TeamSTEPPS® programs in the clinical setting, however whether it can be applied to nursing students in the academic setting has a small amount of growing evidence. The following databases CINAHL, Medline, and PubMed were searched using key words “TeamSTEPPS®, attitudes, and nursing students” with limited results. In one study by Goliat et al (2013), they integrated TeamSTEPPS® into an undergraduate nursing curricula and demonstrated improvement in nursing student attitudes. In addition, an article by Meier et al (2012) studied medical students only and they created an entire course based upon TeamSTEPPS®. A similar study (Baker & Durham, 2013) incorporated TeamSTEPPS® into an Interprofessional Education course for nursing, medical, and pharmacy students. Several other research studies included a mixed group of healthcare students (Brock et al., 2013; Caylor et al., 2015; Jernigan et al., 2016; Sweigart et al., 2016) and demonstrated improved student attitudes following a TeamSTEPPS® intervention in some of the key competencies.

This exploratory, pilot study utilizes a pre/post survey design with a convenience sample of online RN to BSN students from one university with a sample size of 11 pre and 7 post. All students received an email
explaining the project. Participation is both voluntary and anonymous. A modified TeamSTEPPS® program educational intervention was developed and made available to participants through an online link. Electronic surveys were sent via email using an approved university survey application, data was entered into SPSS, then analyzed using descriptive and non-parametric statistics. The 30-item TeamSTEPPS® Teamwork Attitude Questionnaire (T-TAQ) self-reported survey (AHRQ, 2014) was used to assess nursing students’ attitudes about teamwork. The tool is a free, open source resource with 5 subscales correlating to the five competencies of the program available from http://www.ahrq.gov/teamstepps/instructor/reference/teamattitude.html. As a certified Master Trainer in TeamSTEPPS®, I customized the TeamSTEPPS® program materials available online at www.ahrq.gov. Students received a hyperlink to access the educational training including select videos, instructor voice over, and audiovisual slides. This step is necessary because the traditional educational intervention is a face to face full day workshop intended for practicing healthcare workers. Institutional Review Board approval was obtained for this project.

The positive results of this pilot study will be used to inform the RN to BSN program whether to integrate the TeamSTEPPS® program into the undergraduate nursing curriculum. In addition, buy-in by nursing faculty has been obtained based upon these results that demonstrate teaching nursing students’ teamwork concepts can positively influence their attitudes. By bringing TeamSTEPPS® to online RN to BSN students, their attitudes may influence their current clinical practice in the healthcare environment, thus the immediate potential to positively impact direct patient care outcomes is highly plausible.

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Keywords:
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References:


modified TeamSTEPPS® training for multiprofessional education. *Clinical Simulation in Nursing, 11,* 163-171.


Sweigart, L., Umoren, R., Scott, P., Carlton, K., Jones, J., Truman, B., & Gossett, E. (2016). Virtual TeamSTEPPS simulations produce teamwork attitude changes among health
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**Abstract Summary:**
TeamSTEPPS® is an evidence based practice, patient safety program created for the healthcare setting. Online RN to BSN students received an online educational intervention. Survey results demonstrated a positive change in students’ attitudes toward teamwork and patient safety.

**Content Outline:**
I. Introduction

- Are RN to BSN students prepared for today’s challenging healthcare environment?
- There is a great need to better educate nursing students on teamwork and patient safety because they will play a vital role as they transition to bachelor prepared nursing professionals.
- List multiple initiatives that support teamwork.
- Provide an overview of the TeamSTEPPS® program.
- Brief review of several studies that have improved students’ attitudes using TeamSTEPPS®.

II. Body

A. Main Point #1: Describe the exploratory pilot study.

* Sample of RN to BSN online students at one university in the Southeast US

* Pre and post electronic survey was conducted.

* Tool description: TTAQ

B. Main Point #2: Explain the modified TeamSTEPPS educational intervention using technology for online students.

C. Main Point #3: Statistical results of the pilot data.
* Descriptive and non-parametric statistical analysis performed.

* Review results of the 5 subscales of the TTAQ

**III. Conclusion**

- The positive results of this pilot study will be used to inform the RN to BSN program whether to integrate the TeamSTEPPS® program into the undergraduate nursing curriculum.
- Buy-in from nursing faculty has been obtained based upon these results.
- By bringing TeamSTEPPS® to online RN to BSN students, their attitudes may influence their current clinical practice in the healthcare environment, thus the immediate potential to positively impact direct patient care outcomes is highly plausible.

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