

Standardized Participant Simulation Experiences Increase Nursing Student Teamwork and Communication Skills

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Author Biography

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Introduction

Bachelor of Science in Nursing (BSN) graduates often enter fast-paced health care environments that require strong communication, teamwork, and patient advocacy skills. Preparing nursing students to communicate and work within interdisciplinary teams supports safe patient care. Among adults, 12% report experiencing a medical error in the past two years (Schneider et al., 2017). Often, medical errors occur due to systems and processes that fail to prevent errors. Effective teamwork and communication are essential to preventing errors in the healthcare setting (Leonard, Graham & Bonacum, 2004).

Many programs have been developed to support teamwork skills in the healthcare setting. One, TeamSTEPPS, was developed by the Agency for Healthcare Research and Quality (AHRQ, 2016a). TeamSTEPPS strategies are designed to resolve conflicts, improve communication, and remove barriers to safe care using a framework of four core competencies including communication, leadership, situation monitoring, and mutual support (Health Research and Educational Trust [HRET], 2015). The TeamSTEPPS curriculum is available online without cost and includes scenarios tailored to numerous healthcare settings such as surgery, long-term care, and medical and dental practices (2016a). For educational settings, the TeamSTEPPS curriculum offers flexibility to allow adaptation to multiple simulated healthcare environments. This flexibility allows faculty to tailor learning activities to meet the needs of nursing graduates who will enter diverse practice environments

Research supports the use of TeamSTEPPS strategies to improve the teamwork and communication skills of nursing students and health care professionals. Incorporating TeamSTEPPS training into undergraduate curriculum has been shown to improve teamwork and interprofessional collaboration skills (Goliat et al., 2019; Manevalet al., 2019; Robinson et al., 2018). Similarly, implementing TeamSTEPPS strategies in the hospital has been shown to improve teamwork, interprofessional collaboration, length of stay, mortality index, complications, and nurse failure to rescue performance (Borckardt et al., 2020; Holtmann, 2018).

Simulation-based clinical experiences foster learning through active learner engagement. Literature supports that simulation-based education with deliberate practice is effective in achieving goals related to patient safety (Foster, 2018). This activity is unique in that it combines concepts from TeamSTEPPS and simulation to develop an interactive student experience to improve teamwork and communication knowledge and skills.

Goals of Activity

The goal of this activity was to introduce a group of 4th semester BSN students to teamwork tools aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals. This was accomplished by developing a program that incorporated TeamSTEPPS strategies and simulation pedagogy. Teamwork knowledge and attitudes, and communication skills were measured before and after the activity to identify any impact the activity had on these variables.

Description of the Activity

Communication and leadership concepts were introduced through a 6-hour interactive workshop using the TeamSTEPPS 2.0 Fundamentals curriculum (AHRQ, 2016a). This workshop was facilitated by three faculty TeamSTEPPS master trainers. During the workshop, students were allowed to practice using TeamSTEPPS tools with activities including paper chain building and communication exercises.



Following the workshop, students attended two 6-hour simulation days. Here they practiced using core TeamSTEPPS concepts using high fidelity simulation (HFS), standardized patient scenarios (SPS), and peer role play. Students were randomly assigned to small groups of 7-8 to rotate through each of the three stations.

During the HFS experiences, students were part of a team of health care providers delivering care to a complex patient. Each group of students participated in a pre-brief during which they verbally received a Situation, Background, Assessment, and Recommendation (SBAR) handoff report from a faculty member. This was followed by a simulation exercise during which students were provided opportunities to incorporate one or more TeamSTEPPS concepts. For example, one scenario included opportunities for students to call a provider with an SBAR report and to implement several interventions in a timely manner using call-outs and check-backs to remain on task and provide safe care. A fatigued or distracted team member was placed in the scenarios for students to practice situation monitoring and provide feedback. After the scenario ended, students participated in a debriefing during which they discussed which concepts were applied, if they were effective, and how they could have improved their use. The HFS experience focused on the TeamSTEPPS concepts of SBAR, call-out, check-back, STEP, and cross monitoring.

The standardized participant (SP) experience focused on the TeamSTEPPS strategies of hand-offs, the 2-challenge rule, and advocacy/assertion. This experience incorporated opportunities for students to interact with actors assuming roles of managers and health care team members. These scenarios required students to apply TeamSTEPPS skills to the interaction. Following each interaction, students received feedback on their use of strategies to foster teamwork and communication.

The peer role-play experience was also 1 hour long and focused on conducting briefs, huddles, and debriefs, using the “I’m safe” checklist, CUS, and DESC scripts. Here, students worked in pairs to discuss case studies and play the role of information provider and recipient.

Two instruments, the TeamSTEPPS Learning Benchmark Quiz and the TeamSTEPPS Teamwork Attitudes Questionnaire (T-TAQ) were used for pre/post-program assessment (AHRQ, 2016b).

Reflection

Findings indicate that implementation of TeamSTEPPS training and simulation into the 4th semester of a prelicensure BSN program improved students’ knowledge of communication, teamwork, and patient care quality. Further, the data indicated that the program helped students become more aware of the importance of teams and team function related to teamwork strategies, leadership, situation monitoring, and mutual support.

Student feedback was positive. One student indicated, “*The most important concepts I learned [in this course] were leadership skills through TeamSTEPPS...*” Another student stated, “*Our TeamSTEPPS and diversity trainings were very helpful.*” Other students have verbalized positive feedback from interviewers when they mention they have received TeamSTEPPS training.

Deliberate strategies to improve communication and teamwork are necessary to prepare nursing students for the interprofessional practice environment. One significant limitation to this activity was the absence of an instrument to measure students’ abilities to incorporate these TeamSTEPPS strategies into the simulation scenarios. Future activities will include this additional measure.

By supplementing didactic information from the supplied TeamSTEPPS workshop with standardized patient experiences students are able to practice their new skills in real life scenarios. While this activity was evaluated to determine the perceived impact of this activity in BSN nursing students, the principles could be easily adapted to apply to other disciplines.

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