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All the World's a Stage: Integrating Theater and Medicine for Interprofessional Team Building in Physician and Nurse Residency Programs

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ABSTRACT

Background: To facilitate the delivery of excellent patient care, physician-nurse teams must work in a collaborative manner. We found that venues for the joint training of physician-nurse teams to foster collaboration are insufficient.

Methods: We developed a novel interprofessional experience in which resident physicians and nurse residents practiced communication and collaboration skills involving a simulated alcohol withdrawal patient care scenario. Theater students portrayed the patients experiencing withdrawal. The team cared for each patient in a fully equipped and functioning hospital room in a simulation center. Together, they collaborated on interventions and a patient plan of care. After the 10-minute bedside scenario, physician and nurse educators facilitated a joint debriefing session for the physician-nurse learning team.

Results: Learners noted an improvement in their ability to identify alcohol withdrawal (44% of participants preencounter to 94% of participants postencounter) and to communicate with team members (55% of participants preencounter to 81% of participants postencounter).

Conclusion: The learners felt the physician-nurse team training experience was exceptionally valuable for its authenticity.

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INTRODUCTION

Medicine and nursing have long traditions of education and training, but the two groups have historically learned independently. Most medical and nursing school students lack substantial opportunities to learn with and from each other. Yet immediately upon graduation, resident physicians and novice nurses regularly find themselves thrust into high-intensity, high-acuity clinical situations where they are expected to collaborate to provide excellent patient care.

Interprofessional education in healthcare is rapidly gathering momentum. As clearly delineated in the World Health Organization Framework for Action on Interprofessional Education and Collaborative Practice, interprofessional education is a "key step in moving health systems from fragmentation to a position of strength."[1] A growing number of examples of interprofessional educational exercises demonstrate significant improvement in participating students' attitudes towards team-based care.[2] Educators have illustrated that interprofessional exercises allowing dynamic interactions between students are the most effective.[3]

We describe the steps behind the development, execution, and evaluation of an educational program designed to actively engage resident physicians and novice nurses to work together to care for a simulated inpatient in crisis. The simulation allowed the physician-nurse team to work with a standardized patient so they could practice collaborative verbal and nonverbal patient communication skills. In addition, this multiinstitutional and multidisciplinary collaboration included Healthcare Theater students at the University of Delaware.

METHODS

Christiana Care Health System is a large community-based teaching hospital with more than 1,200 inpatient beds in northern Delaware. In addition to free-standing physician residency programs, Christiana has medical nurse and critical care nurse

Figure 1. The resident physician and novice nurse collaborated at the bedside in our simulation center to care for a standardized patient.

residency programs for recently graduated nurses. These novice nurses gain experience and work with mentors during the first year of their career.

Christiana Care Health System has an anonymous reporting system called Safety First through which any staff member can report clinical situations that were less than optimally handled. In reviewing these Safety First reports, we identified the care of inpatients in acute alcohol withdrawal to be among the most commonly reported. Thus, we developed a Team Observed Structured Clinical Examination (TOSCE) around this topic. For this educational exercise, novice nurses partnered with internal medicine resident physicians.

This educational program involved multiple collaborations. Participants came from 2 institutions. Nursing and physician faculty from Christiana Care Health System partnered with faculty and students from the University of Delaware's College of Health Sciences and College of Arts and Sciences. The faculty from both institutions collaborated in preparing the educational content, scripting the scenario, and facilitating the learning experience.

The program took place in Christiana's Virtual Education and Simulation Training Center. The simulation sessions were held in a fully equipped hospital room facsimile, and the participants could access a mock electronic medical record and medical orders, as well as other electronic resources such as care management and medication dosing guidelines (Figure 1).

Undergraduate Healthcare Theater students were trained to portray inpatients in acute alcohol withdrawal. These students and their faculty spent several hours in our hospital observing real patients during alcohol withdrawal to help the students act the parts more realistically. The scenario was scripted so the student would act tremulous, upset, loud, and belligerent and would pretend to have visual hallucinations.

The nurse learner received a verbal report on the patient, similar to the report that he or she would receive on a patient care unit. The nurse learner then initiated the encounter with a routine bedside assessment of the patient. Thereafter, he or she could page the physician learner to the patient's bedside for additional orders and treatment planning. The physician-nurse team was expected to communicate verbally and nonverbally with the patient, communicate and collaborate with each other, recognize the symptoms of alcohol withdrawal, and formulate a treatment plan.

A nurse educator and a physician educator observed the simulated clinical scenario through a 2-way mirror, and the scenarios were videotaped. After the 10-minute bedside scenario, the physician and nurse educators facilitated a joint debriefing session for each pair of physician-nurse learners. The debriefing session encouraged the physician-

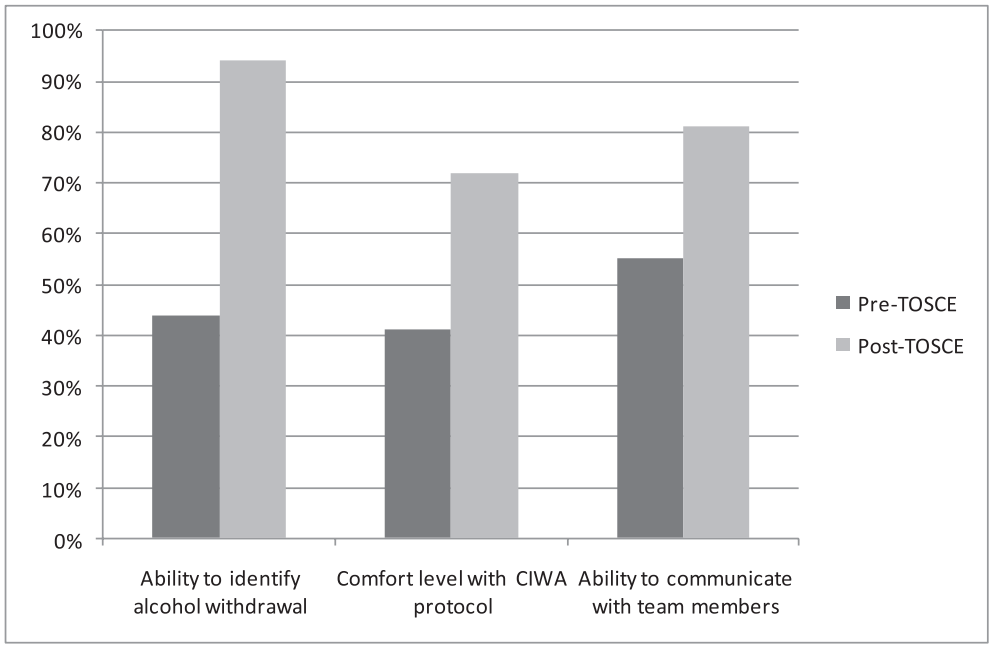

Figure 2. Percentage of simulation participants who rated their abilities or comfort levels at 6 or 7 on a 7-point scale before and after the Team Observed Structured Clinical Examination (TOSCE). CIWA, Clinical Institute Withdrawal Assessment.

nurse learners to reflect on their performance and recognize strengths as well as areas for improvement. Bookmarked segments of the videotaped encounters were replayed to emphasize teaching points. Physician and nurse learners were encouraged to analyze their communication skills and to identify more effective verbal communication phrases or nonverbal communication cues. Furthermore, the standardized patient gave the nurse and physician learners feedback from a patient's perspective on their communication skills and their ability to put the patient at ease.

RESULTS

We piloted this program in fall 2011. In that early stage, we assessed 3 outcomes to evaluate the program's effectiveness. Participants used a 7-point scale to rate their confidence or comfort in the following clinical and communication skills.

1. Ability to identify a patient in acute alcohol withdrawal
2. Comfort in performing a Clinical Institute Withdrawal Assessment (CIWA) evaluation
3. Ability to communicate with team members about patient needs and to request aid for formulating an appropriate treatment plan

A total of 45 physician-nurse teams took the survey. Figure 2 shows the proportion of learners who rated their ability at the highest end of the scale, 6 or 7 (agree and strongly agree, respectively), before the TOSCE and after the TOSCE. Improvements were seen across all variables after the TOSCE: confidence in ability to identify alcohol withdrawal (44% of participants preencounter to 94% of participants postencounter), comfort level with the CIWA protocol (41% of participants preencounter to 72% of participants postencounter), and ability to communicate with team members (55% of participants preencounter to 81% of participants postencounter).

DISCUSSION

Today's resident physicians are routinely exposed to learning through simulation. However, many of our residents commented that this education experience was their first exposure to a TOSCE. Even the handful of resident physicians with past experiences in team training noted that they had involved a mannequin and not a live patient, as in this case. The residents felt that the ability to practice verbal and nonverbal communication with patients in collaboration with nurse partners was a novel experience. They appreciated the opportunity to receive real-time feedback from the standardized patients. Likewise, their nurse counterparts reported that this experience allowed them to work on interprofessional skills while caring for patients.

Other groups have suggested that the authenticity of the exercise can raise the effectiveness of the interprofessional education.[4,5] In our case, the over-

whelming majority of the learners considered the experience exceptionally valuable for its authenticity.

This project was the starting point for collaboration between our physician and nurse residency programs on interprofessional education using simulation. In attempting to operationalize this program, we discovered many barriers and steadily worked through them. Primary among the barriers was the depth of faculty manpower needed for conceptualizing and writing the scenarios, training the standardized patients, and leading faculty development to train the facilitators. One of our biggest challenges was coordinating schedules to free the resident physicians and novice nurses from their clinical duties because the education sessions took place during the work day. However, we were fortunate to have a well-equipped simulation center and learned how to optimize the use of all equipment and props.

CONCLUSION

Resident physicians and novice nurses are often thrown into stressful situations with complex inpatients. This simulation training method with standardized patients emphasizes developing communication skills between clinical partners, collaborating with one another, and developing a workable treatment plan inclusive of the patient.

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Epitoma

Salam et al from Christiana Care Health System in Delaware use a quality improvement methodology to advance medical education, interdisciplinary teamwork, and patient care. Using an anonymous patient safety reporting mechanism, they identified the management of alcohol withdrawal to be a concern. They then developed an innovative curriculum to improve interdisciplinary teamwork between physicians and nurses using simulation training and standardized patients. Teams that participated in the learning exercise improved their confidence with indentifying patients in acute alcohol withdrawal, performing a Clinical Institute Withdrawal Assessment, communicating with team members about patient needs, and requesting an appropriate treatment plan. This study is an example of how quality improvement, patient safety, and interdisciplinary training can be integrated into the curriculum.

—Guest Editor Leonardo Seoane, MD

This article meets the Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties Maintenance of Certification competencies for Interpersonal and Communication Skills and Professionalism.