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Short Communication

# Healthcare Theatre and Simulation: Maximizing Interprofessional Partnerships

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## KEYWORDS

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**Abstract:** Interprofessional collaboration not only improves our ability to offer high-quality patient care, but also offers unique, cost-effective opportunities to teach the next generation of health care providers to do the same. In 2011, the Interprofessional Education Collaborative (IPEC) restructured the traditional model of health care delivery to improve safety, quality, and accessibility to care in a patient-centered climate. However, the path forward remains unclear and under-supported. Educators must take the initiative by bridging partnerships with clinical colleagues to create quality interprofessional learning experiences. Simulation is one such pedagogical tool, as it provides students a safe, controlled clinical setting in which to practice interprofessional communication and teamwork, while reinforcing skills learned in class. This philosophy gave rise to the University of Delaware's (UD) Healthcare Theatre program. Created in 2009 when the College of Health Sciences (Nursing, Physical Therapy, and Behavioral Health and Nutrition) partnered with the College of Arts and Sciences (Theatre and Medical Anthropology) and affiliated tertiary care hospitals, the program provides high-impact, low-cost educational opportunities that both students and teachers have found to be extremely valuable. This article will describe UD Healthcare Theatre to demonstrate how other schools of nursing could incorporate interprofessional education simulations without major curricular change or additional faculty hiring.

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Interprofessional education (IPE) in health care has taken years to penetrate academia. Successful culture change required a sustainable infrastructure and support from multiple professional organizations. That support came in 2011, when the Interprofessional Education Collaborative (IPEC)

### Key Points

- Through thoughtful partnerships, it is possible to have fiscally responsible interprofessional education.
- The benefits of interprofessional education reach beyond the students to the faculty advisors by improved networking and research opportunities.
- Look beyond the obvious as you look for interprofessional simulation partners, sometimes it is not the most apparent department or partner.

formally presented a call for change in health professions education. IPEC is comprised six national health care agencies and educational accreditation boards: The American Association of Colleges of Nursing (AACN), American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of American Medical Colleges, and Association of Schools of Public Health. IPEC's goal was to identify, define, and present four essential core competencies for interprofessional (IP) collaborative practice and jointly promote IPE in higher education. The core

competencies IPEC identified are: (a) values/ethics for IP practice, (b) roles/responsibilities, (c) IP communication, and (d) teams/teamwork. The accrediting bodies within IPEC are revising their accreditation standards to include implementation of these core competencies in didactic education. IPEC's philosophy is that promoting IP collaboration between health professions students will further educators' commitment to promoting patient-centered care (IPEC, 2011).

AACN, a nationally recognized accrediting body for nursing education and active IPEC partner, is responsible for establishing IPE guidelines within nursing education (AACN, 2008; Cronenwett et al., 2007). AACN wove IPE throughout its nine *Essentials of Baccalaureate Education for Professional Nursing Practice*, published in 2008. The sixth essential, IP Communication and Collaboration for Improving Patient Health Outcomes, exclusively focuses on communication and collaboration between health professions to improve health care delivery and patient safety (AACN, 2008). Clinical simulations are a promising new pedagogical tool for acculturating students to IP collaboration.

Already, several studies have evaluated outcomes of simulation-based IPE with favorable results. In 2008, Baker et al. recruited both nursing and medical students (n = 285) for a research project that evaluated two

different pilot modules focused on patient-centered collaborative care. The study reports that both disciplines identified the benefit and value of IPE within a simulated setting. The student teams said that the simulation's greatest benefit was helping them understand their role within the patient care continuum and the role of their simulation partner. The study indicated several challenges IPE might face, including scheduling difficulties, the need for significant resources, and the lack of parallel curricular programs between disciplines as challenges with the study. Nonetheless, the researchers found that simulation-based IPE was a pedagogy that prelicensed participants identify as a positive environment to learn with and about other health care disciplines (Baker et al., 2008). In 2009, Dillon et al. examined the effectiveness of simulation as an IPE strategy with fourth year nursing (n = 68) and third year medical (n = 13) students participating in a mock code simulation. Using a quasi-experimental design, the validated survey scored participants before and after the simulations on the following four factors: (a) caring versus curing, (b) nurse autonomy, (c) shared education and teamwork, and (d) physician authority. The study results revealed that both the medical and nursing students had a statistically significant improvement between their pre and post scores for collaboration. Additionally, the medical students showed statistically significant improvement between their pre and post scores in nurse autonomy. There was not any statistical significance in the change of total scores pre and post; nonetheless, in their qualitative responses, participants identified the importance of communication and teamwork among nurse-physician teams. These findings suggest that it is important to provide IPE experiences early in the education process to foster a collaborative relationship that will be sustained throughout students' professional tenure. Notably, the researchers reported that a simulated environment fosters collaboration, controls the circumstances, and ensures patient safety (Dillon, Noble, & Kaplan, 2009). In 2011, Prentice et al. used descriptive research methodology to evaluate the outcome of an IPE simulation workshop for licensed health care providers working in a community hospital setting. Researchers recruited 163 subjects (respiratory therapists, registered nurses, practical nurses, social workers, personal support workers, dietitians, and pastoral care) and asked them to complete four different questionnaires (one workshop evaluation and three surveys from the National League for Nurses) at the end of daylong workshop. Results from the surveys, and qualitative comments, indicated that licensed participants identified simulation as an effective, active learning strategy for IPE. Researchers noted that 73.6% of respondents were registered nurses, which limits the study's generalizability (Prentice, Taplay, Horsley, Payeur-Grenier, & Belford, 2011). Despite its limitations, although, the study reflects findings similar to other IPE research.

**Table 1** Projected Annual Budget 2015: Healthcare Theatre

Expense Categories	\$ Budgeted Annually
Healthcare Theatre coordinator (75%)	\$45,000.00
Director, Healthcare Theatre (overload)	\$14,000.00
Healthcare Theatre educator	\$11,000.00
Administrative assistant II	\$17,850.00
Technical support	\$15,000.00
Benefits (29.1% of base salary)	\$34,294.35
Experiential learning specialist	\$14,400.00
Training and travel	\$4,000.00
Linen service	\$500.00
Transportation	\$2,200.00
Office equipment and supplies	\$2,000.00
Medical supplies and equipment	\$3,500.00
Professional memberships	\$700.00
Miscellaneous	\$2,500.00
Projected annual expenses	\$167,544.35
Annual revenue	\$46,000
Tuition revenue	\$11,000.00
Final total	\$110,344.35

The University of Delaware's Healthcare Theatre (HT) program, building on the findings previously mentioned, is a course offering a repertoire of experiential and discovery learning strategies. By training undergraduate students to portray patients in simulations, HT achieves two essential educational goals: it provides both health care and theatre students with high-impact, low-cost IPE opportunities.

HT began in 2009 as a pilot IPE between theatre, nursing and physical therapy. After great success, nursing and theatre faculty enhanced the collaboration to develop a cross-credited undergraduate course that teaches students to become simulated patients (SPs), family members, and confederates in a wide variety of situations. In 4 years, HT has grown exponentially within the region, offering a magnitude of IPE experiences for both academia and clinical practice. Cowperthwait, Saylor, and Schell (2014) offer specific guidelines for developing this HT program in an academic setting; one of the primary criteria is designing scenarios that encourage teamwork and IP communication.

Because HT is part of the university curriculum, the program provides these experiential learning simulations without outside resourcing such as traditional standardized patient programs (Cowperthwait et al., 2014). Running a standardized patient program within a simulation center requires an extensive infrastructure and large budget (Table 1). Although the cost of a traditional standardized patient program can vary depending on the institution and the degree of simulation needs, the average annual cost for a similarly sized traditional SP program is between \$600,000 and \$700,000 (Schram & Nicholas, n.d.). One cost that traditional programs face is compensating

standardized patients, who are compensated for both training and performing. Performance can yield a wage anywhere from \$10 per hour to \$100 per hour, whereas the hourly rate for training, which varies depending on the complexity of the scenario, can range from \$600 to \$850 per SP (Calhoun, Vrbin, & Gryzbicki, 2008; Hasle et al., n.d.).

The purpose of this article was to provide examples of IPE simulations developed by UD's HT that could be easily adapted by other schools of nursing at a low cost, without major curricular change or additional faculty hiring.

## The Interprofessional Partnerships: Academia Theatre Department

The UD Theatre Department and School of Nursing offer unique and interdependent resources that support HT in its mission to optimize the impact of IP simulations in academia and clinical practice. As HT continues to expand, the symbiotic relationship with this partnership becomes increasingly apparent. HT cannot exist solely in the sciences or the arts; it is necessarily an IPE venture, and all involved are the richer for it.

HT faculty, both nursing and theatre, teach a three-credit course each Fall and Spring semester entitled Healthcare Communications that educates students to be SP performers for the IP simulations (see Table 2; Cowperthwait et al., 2014). The course is 3 weeks of didactic education, followed with 30 hours of scheduled scenario-based simulation experiences for each enrolled student. There are a total of 20 different character portrayals, eight of which are assigned for IPE (see Table 2). Each HT student is assigned three character descriptions based on their individualized qualities and how those characteristics align with the theatrical skills required for realistic patient representation. Additionally, all HT students are assigned an initial mental health assessment scenario that allows all the patient performers to become acclimated and standardized to the simulation and debriefing process. In the initial psychological assessment, the HT student plays the role of a young adult experiencing suicidal ideation, whereas nursing students enrolled in a psychosocial nursing course practice interviewing skills. In the weeks that follow, the HT students are prepared to perform scenarios including health promotion, cultural diversity, and many others that stretch their improvisational performance and communication skills. All HT scenarios are supported by the course faculty to ensure standardization and quality. The HT course offers a diversity of "patients" taught and directed by theatre faculty which reduces the strain on health care faculty and improves fidelity.

The theatre students are taught to provide feedback to the health care student(s) from the perspective of the assigned character during debriefing. The comments are to be focused on interpersonal interactions, communication,

**Table 2** List of Interprofessional Simulation Experiences at University of Delaware

Name of Simulation	Interprofessional Objectives*	Participants
Four diversity laboratories A. Health promotion B. Cultural diversity C. Vulnerable population D. Physical disability	<ol style="list-style-type: none"> <li>1. Place the interests of patients and populations at the center of interprofessional health care delivery.</li> <li>2. Embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team.</li> <li>3. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions.</li> <li>4. Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.</li> <li>5. Maintain competence in one's own profession appropriate to scope of practice.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sophomore nursing students</li> <li>2. Junior/senior anthropology students</li> </ol>
Spinal cord injury	<ol style="list-style-type: none"> <li>1. Communicate one's roles and responsibilities clearly to patients, families, and other professionals.</li> <li>2. Recognize one's limitations in skills, knowledge, and abilities.</li> <li>3. Listen actively and encourage ideas and opinions of other team members.</li> <li>4. Use respectful language appropriate for a given difficult situation, crucial conversation, or inter-professional conflict.</li> <li>5. Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving.</li> </ol>	<ol style="list-style-type: none"> <li>1. Senior nursing students<sup>†</sup></li> <li>2. First year Doctorate of Physical Therapy students</li> </ol>
Discharge planning post CVA	<ol style="list-style-type: none"> <li>1. Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving.</li> <li>2. Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health care professionals and with patients and families.</li> <li>3. Organize and communicate information with patients, families, and health care team members in a form that is understandable, avoiding discipline-specific terminology when possible.</li> <li>4. Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others.</li> <li>5. Use unique and complementary abilities of all members of the team to optimize patient care.</li> </ol>	<ol style="list-style-type: none"> <li>1. Junior/senior nursing students</li> <li>2. Second year Doctorate of Physical Therapy students</li> <li>3. Junior/senior nutrition/dietetics students</li> </ol>
New onset diabetic-teen	<ol style="list-style-type: none"> <li>1. Place the interests of patients and populations at the center of interprofessional health care delivery.</li> <li>2. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions.</li> <li>3. Engage diverse health care professionals who complement one's own professional expertise, and associated resources, to develop strategies to meet specific patient care needs.</li> <li>4. Use unique and complementary abilities of all members of the team to optimize patient care.</li> <li>5. Reflect on individual and team performance for individual, and team, performance improvement.</li> </ol>	<ol style="list-style-type: none"> <li>1. Senior nursing students</li> <li>2. Junior/senior nutrition/dietetics students</li> </ol>

*(continued on next page)*

**Table 2** (continued)

Name of Simulation	Interprofessional Objectives*	Participants
Terminal osteogenic sarcoma	<ol style="list-style-type: none"> <li>1. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care.</li> <li>2. Develop a trusting relationship with patients, families, and other team members.</li> <li>3. Act with honesty and integrity in relationships with patients, families, and other team members.</li> <li>4. Forge interdependent relationships with other professions to improve care and advance learning.</li> <li>5. Use process improvement strategies to increase the effectiveness of interprofessional teamwork and team-based care.</li> </ol>	<ol style="list-style-type: none"> <li>1. Junior/senior nursing students</li> <li>2. Third/fourth year medical students</li> </ol>

\* Interprofessional competencies for all laboratories have been adapted from [Interprofessional Education Collaborative Expert Panel \(2011\)](#).

† Originally used sophomore nursing students, but leveling needed to be adjusted.

and therapeutic touch. Theatre students are instructed to allow facilitators to address skill or technique feedback during the debriefing. The opportunity for prelicensed and newly licensed health professionals to hear direct feedback from the patient and/or family member's perspective has offered information that the health care participants can apply to clinical practice. On postsimulation evaluation surveys, health care participants rated an average of 3.98 on a four-point scale to the statement "the Healthcare Theatre student was respectful, professional & provided me with feedback that I can use in clinical practice." The HT students take great care with feedback because they realize the responsibility associated with forming the next generation of health care providers; they are also aware that they are giving a voice to the voiceless: the patient. An example of this can be seen in the words of one HT student, "Feedback is the most important part of the process, especially the positive comments. Those are the accomplishments that the nursing students feel good about and take with them at the end of the sessions. And I know I've said something of value when there is a look of surprise or contemplation on the students' faces." (R. Tilley, personal communication, November 22, 2014).

The course has attracted undergraduate students from a multitude of majors across campus, such as psychology, engineering, communications, marketing, pre-med, biology, nursing, criminal justice, political science, exercise science, and medical laboratory sciences. The impact of the IPE simulations is not limited to the health care learners participating in the simulation. The theatre students learn about health care, improvisational performance, and patient advocacy. One former HT student, now in his third year of medical school, wrote:

I will always remember how it felt to be a patient. In medicine, the patient's mood and willingness to cooperate can lead to better outcomes. Since we had many nursing and PT student teams rotate

throughout the day, I got to experience many different approaches to care. Even though I was an actor and not a real patient, I could still feel the difference when a nurse held my hand and asked me how I was doing. I felt like a human being and someone that was cared for despite my "head injury". So, as a result, I made a decision to spend more time with the people that I will one day give care to. I want to help them heal, not only with medicine but also compassion. (Sepher Segat, personal communication with author, 2012).

Another HT student wrote a reflection on how portraying Arik Meshnikov, a patient with cerebral palsy, impacted his perspective on individuals with physical disabilities:

Being Arik Meshnikov was one of the hardest obstacles I faced this semester, mentally and physically. I felt determined to get the character right without complaint. I often wondered how they do it. After twenty minutes on the crutches I was tired, sweaty, and achy. That was twenty minutes; this is their life I thought. That experience gave me a greater respect and appreciation for what people with disabilities go through every day. (Robert Tilley, personal communication with author, 2013).

There is very few educational opportunities in academia where each participant in the room is learning to develop their individual role while supporting the learning of the other individuals.

### Physical Therapy Department

When the partnership first formed with nursing, physical therapy (PT), and theatre, there was not much literature or research available regarding IPE. Fundamentally, each of the collaborators could envision the value of IPE within a simulation setting. The collaborators decided to use clinically appropriate patient care situations from their

own experiences to create challenging scenarios. One of the primary objectives for the simulations was to foster an awareness of each participant's professional role while stimulating the need for IP teamwork and communication.

There are several challenges similar to those found in the literature with this collaborative partnership. For example, both the Doctor of Physical Therapy (DPT) and Nursing curriculums have very time-intensive schedules. Additionally, blending a graduate DPT program with an undergraduate nursing curriculum has had a few challenges with respect to correctly leveling the experience with the appropriate students. These obstacles have been ameliorated with open communication and identified champions within each department. Also, as this IP partnership has progressed, the IPE simulations have matured to incorporate identified patient safety issues and enhance student learning.

The evolution of the PT simulations went from skill-based encounters with a quick 5 minute prebriefing to an encounter with a comprehensive electronic medical record for each learner to review at home. Additionally, the facilitators added a 15-minute team meeting before each IP simulation to give the learners an opportunity to review the case, set goals for the patient, and clarify roles. This continues to be a work in progress, and all those involved remain open to the fluidity of discussion for future changes.

## Medical Anthropology

One challenge for educators of all health professions is to provide appropriate education on culturally competent care. Many health profession educators teach cultural competence by emphasizing static traits and implying that it can be acquired as a technical skill (Kleinman & Benson, 2006; Luong, 2009). Anthropologists are critical of this educational approach and argue that teaching an “explanatory models” approach (Kleinman & Benson, 2006), cultural humility (Tervalon & Murray-Garcia, 1998), and communication skills may be more effective. In an effort to develop cultural diversity simulations that incorporated effective pedagogy, HT and nursing faculty sought out faculty in the anthropology department for expert advice and potential for collaboration. One medical anthropology faculty member enthusiastically agreed to participate in this project. As a result, this collaboration has offered symbiotic learning opportunities for Nursing, Medical Anthropology and Theatre.

To ensure that all students were taught from the same model, the LEARN framework, an acronym that stands for Listen, Explain, Acknowledge, Recommend, Negotiate (Berlin & Fowkes, 1983), was identified as the model that was most suitable for all learners. At the beginning of the semester, students in nursing and medical anthropology were independently taught discipline-appropriate content using the LEARN framework (Berlin & Fowkes, 1983),

whereas theatre students are learning and practicing their diverse patient roles. Toward the end of the semester, all the students participated in basic simulations that focus on the selected diverse patient populations (see Table 2). The nursing students enter the simulation in pairs to interact with the theatre student, whereas the medical anthropology students observe the interaction in the control room. After the simulation, all students participate in the debriefing with faculty facilitation. Theatre students offer feedback from the perspective of the diverse patient. Anthropology students focus their feedback on cultural competence specific to the simulation(s) they observe. Nursing students provide reflection on the challenges they face to implement the LEARN model and provide culturally competent care for the patient. The facilitator acts as a guide for the debriefing to keep the focus on the scenario objectives and on ways to resolve the disparity. As a class assignment, anthropology students are tasked to critique the nurse–patient interaction and apply the didactic content from their coursework into an integrative paper; nursing and theatre students both have a self-reflection paper due at the end of the semester.

This IP opportunity provided medical anthropology students with opportunities to observe, evaluate, and act as medical anthropologists when ethical considerations and logistics would constrain their ability to do so in actual clinical settings. Simultaneously, the sophomore nursing students taking a fundamentals course were afforded the chance to take the LEARN model and apply it clinically in multiple simulated experiences. Theatre students gained an appreciation of the challenges diverse patients encounter on a daily basis. All the students were highly motivated for the opportunity to be in an active learning environment, where all participants were collaborating on quality of care improvement for diverse patient populations.

## Behavioral Health and Nutrition

The most recent visioning report from the Academy of Nutrition and Dietetics (Kicklighter, Cluskey, Hunter, Nyland, & Spear, 2013) recommends increased clinical experiences for nutrition students and a new focus on IP teamwork and collaboration. The curricular education for registered dietitians includes primarily academic coursework as an undergraduate student. Most of the experiential learning is gained in a postundergraduate dietetic internship that lasts approximately 9 months. Therefore, most of the junior-level nutrition students have no experience with patient care or working with other health professions before graduation. The collaboration with HT and other departments within the university offers the infrastructure and IP experiences within a safe, supported environment before actual clinical exposure.

The IP partnership with faculty in the Department of Behavioral Health and Nutrition, nursing, HT and PT was

**Table 3** Qualitative Comments from Interprofessional Simulation Experience Postsurvey (IRB approved)

Topic	
Professional roles	<p>This simulation helped me understand the intertwining as well as individual roles each health care professional has.</p> <p>It was neat to work with other students and I really enjoyed being able to see how they interacted with patients as well.</p> <p>The PT student focused on different things than I did and that provided me with more knowledge about her field which helps me understand my own role.</p> <p>It was especially helpful having the PT in the room because there were many things that I learned about stroke rehabilitation programs.</p> <p>I really enjoyed this experience because it helped me put into perspective the role I will be playing in respect to the other providers. It also allowed me to see when it is the correct time to call other health care providers such as the nutritionist, physical therapist and social worker for info pertaining to their fields.</p> <p>I was especially glad to have the PT student there to explain PT in depth because I do not feel as if I would have had the proper amount/depth of information about PT so this made for a well-rounded patient encounter.</p> <p>It was a good experience for me because it made me play the role of a nurse working with other health care professionals for the best care of the patient. Very interesting!</p> <p>This was a fun eye-opening experience into team meetings and the overlap that exists between disciplines</p>
Communication	<p>I enjoyed this experience because I have never had a learning experience like it. It helped me to learn how to communicate effectively with a patient and collaborate with other students.</p> <p>Difficult to address my agenda of approaching patient concerns because they were different than the nurses line of thinking. We needed to get on the same page. In the end we were able to comfort the patient and family and come to an understanding.</p>
Teamwork	<p>I learned that teamwork through team meetings is an incredibly valuable practice.</p> <p>I really enjoyed the opportunity to work with students from other areas.</p> <p>I thought [the medical student] and I worked well together and created a feeling of comfort for the husband by both explaining the aspects of his wife's care.</p> <p>This experience provided me with the knowledge on how the health care teamworks together.</p> <p>It was also interesting and new to be working together as a team and mimicked a "real world" work experience.</p>
Feedback during debriefing	<p>The feedback from the scenario also gave me as well as the other students things to work on and things we were doing well and this to me was one of the most beneficial aspects of the simulation—talking together about improvements to be made but at the same time I gained confidence as they complemented certain things I didn't know I had done right.</p> <p>Great experience, valuable feedback, would highly recommend to young medical professionals of all disciplines.</p> <p>I want to provide the best healthcare possible to my future patients, so it is important to me that I receive critical feedback on my techniques.</p> <p>I enjoyed receiving feedback regarding how to better focus with the client and or family members as I would not have had to opportunity to learn about this otherwise.</p>
Realism	<p>I think all students that will be working in situations where they will be dealing directly with people—especially in health care—would benefit from simulations like this one. It provides real scenarios that you can apply to your future career</p>
Areas to improve	<p>I believe that it is important that the students get a lot more time to visit with the patient. I believe that the amount of time was too short to accomplish all the tasks that needed to be discussed.</p>
Overall experience	<p>I think we didn't have much time to focus on short term options for her care.</p> <p>The simulation went well and was a great learning opportunity.</p> <p>Having more than one person trying to help a patient was less overwhelming and we gained the patient's trust more effectively coming from different professions.</p> <p>My physical therapist and nutritionist were excellent! Very well spoken, knowledgeable and also patient/understanding/empathetic with the patient.</p>

PT = physical therapy.

developed in the Spring 2013. This IP simulation initially involved pairs of junior-level Nutrition and Nursing students interviewing the HT patient independently for about 20 minutes and reviewing the chart to develop a plan of care and goals assessment (see Table 2) related to their specific discipline. Then, the second year DPT students were expected to review the chart and gather data to develop a discharge plan. One week after the simulated Nursing and Nutrition interviews, a 15- to 20-minute unfacilitated team meeting was planned to discuss discharge. Each of the three disciplines was asked to present their concerns, goals, and thoughts from their perspective. Immediately after the team meeting, the triad entered the SP's room for a patient/family conference as a facilitator from each discipline watched from the control room. A formal debriefing followed each simulation experience. The nutrition instructor felt that the simulation added a new dimension to course experiences which had previously consisted of role playing in an outpatient setting. Nutrition majors and faculty were especially eager to take part in simulations because they offered a way to expand students' "real world" experiences before their clinical internship. The authentic performances of the theatre students as patients and family members coupled with the simulated hospital room provided nutrition students a first exposure to team-based care in a simulated hospital setting.

### **Interprofessional Partnership: Academia and Clinical Practice**

Despite the fact that Delaware is one of the two states without a state medical school, HT and the university were able to leverage a partnership with clinical practice to provide IPE experiences that include nursing and medicine. In 2011, a formal partnership was established with a local tertiary care hospital that supports medical students in their third and fourth year clerkship. The physician, nursing, and HT faculty collaborated to craft IPE experience for both prelicensure and postlicensure interdisciplinary teams. The team agreed to target low frequency, high mortality/morbidity patient scenarios requiring intensive teamwork and effective IP communication skills (IPEC, 2011). The consensus agreed that alcohol withdraw versus delirium was a challenging patient presentation for novice frontline care providers. The faculty developed the simulations as a team, the IP scenario was written, validated evaluation tools were investigated, and facilitators were educated on team debriefing skills and techniques. The IP experiences included a prebriefing, a scenario requiring bedside care for the SP, and a debriefing.

There were two learner dyads identified for this IP scenario. One team consisted of junior nursing students enrolled in a psychosocial nursing course and medical students practicing at the hospital. This IP scenario also

challenged newly licensed nursing and medicine teams to develop a clearer understanding of their role while gaining an appreciation for the other discipline.

Evaluations assessed at the completion of all IPE simulations indicated that learners predominantly reported increased appreciation for the roles of other health professions and improved confidence regarding their place in the health care team. Additionally, the experiences provided opportunities for students to think critically about the multiple needs of a complex patient. Students learned to prioritize as they heard the patient care goals of the other health disciplines and learned to negotiate and set goals both with fellow students and patients. This type of IP simulation activity is a cost-effective way to make minor adaptations within a curriculum to meet the new standards. Simulations such as this offer a safe, controlled environment to build confidence, knowledge, and respect for their own profession as well as an appreciation for other members of the broader health care team (see Table 3).

### **Challenges of Interprofessional Education**

There are many benefits to an alliance between academia and clinical practice. Currently, the literature supports IP learning during preprofessional education, however with an already packed curriculum within each discipline is self-limiting (Hamilton, 2011; IPEC 2011). This partnership enabled nursing students in a state with no medical school to have exposure to students in the medical profession before graduation. Additionally, the observed structured clinical evaluation has become a foundational element in medical education around the world, but the scenarios are typically limited to the interaction between the medical student and patient (Abdulghani, Ponnamparuma, & Amin, 2014). This IP experience requires no removal of curricular content or adjustment to the student's schedules because it is woven into their third or fourth year clerkship experience. This alliance offers an opportunity for multiple levels of health care teams to work together in a safe environment and get feedback from the "patient" about their teamwork and ability to provide care.

IPE has many logistical challenges. Although the authors can take some solace in the fact that the challenges they face are not unique to these partnerships; they are very real and require awareness to ensure the success of the IPE simulation experiences. Scheduling a time for multiple students (at least three) and faculty (at least two) to participate in the experiences is daunting. As the IP simulations have become more complex requiring multiple rooms, reserving simulation space has recently been identified as an additional barrier. Targeting the correct level of learner for each discipline requires patience and significant evaluation of curricular matrix and course content. HT has partnered with champions from each

department/institution to embed a firm commitment to IPE. A flexible mind-set and proactive communication style have prevailed to enrich learning and sustain partnerships.

The literature suggests that there are several hurdles to IPE. One of the most significant is identifying the appropriate pedagogy. Additional constraints include logistical challenges such as scheduling, leveling of participants, and the amount of resources required for IPE simulation experiences. However, researchers all reported that simulation is a safe, efficient milieu to approach IPE, develop partnerships, and cultivate opportunities (IPEC, 2011).

## Conclusion

HT has served as a catalyst to develop multiple, budget friendly IPE opportunities within a state university without medical school. As a result, there has been significant exchange between programs, courses, and departments. Although the collaboration with a local tertiary care facility offers nursing and medical students an opportunity to work together, medical residents and novice nurse teams also participate in the developed simulation experiences on different days. The Department of Physical Therapy uses the nursing skills and simulation spaces to enrich the learning in their acute care course and augment the didactic content. Medical anthropology, disabilities services, nursing, and HT collaborated to develop a diversity simulation that included a patient with cerebral palsy. As a result of the success of the HT program, faculties have been asked to present at several workshops on campus. Meeting faculty from a plethora of disciplines has opened the door to opportunities with students and faculty in engineering, business, and fashion merchandising. All these opportunities have significantly expanded the reach and impact of HT. The administration at the university is actively collaborating to provide the needed resources and budget to meet the demand and encourage collaborative learning.

Although HT is fiscally responsible, its popularity and growth have increased its budgetary demands. One way to offset the increased budget is to expand its circle of influence beyond academia to clinical practice and state agencies. Educators in all aspects of health care are seeking to provide active learning opportunities that enrich continuing education and highlight ways that address the challenges in care delivery. HT has negotiated multiple contracts with outside agencies to develop patient-centered, problem-based learning experiences for small and large group workshops and seminars. There are times that the seminars and workshops are disciple specific; but, most maintain HT's commitment to IPE and collaborative learning.

Although HT faculty is developing a program of research to study outcomes of the program, the qualitative

comments from participants across a multitude of disciplines serve to move the program forward. Most learners relish the opportunity to learn alongside other disciplines while deepening their understanding of their role in the health care continuum and developing a newfound appreciation for the skills, talents, and ability of their future colleagues. Feedback, both positive and constructive, from the facilitators and learners has helped to identify challenges and drive the change to move the program forward. In summation, IPE is about collaboration and teamwork; working with another department, outside traditional alliances, to create an environment where all participants can discover new things and learn together.

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