A Two-Year Experience with IPE Using High-Fidelity Simulation: Challenges and Opportunities

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Introduction
Interprofessional education, simulation, and utilization of virtual patients are increasingly utilized to prepare health professions students to enter the profession. High-fidelity simulation provides a safe environment for students to enhance clinical, professional, and communication skills. In this environment, students are free from the typical repercussions of mistakes, allowing them the freedom to practice and learn without fear of harming patients or embarrassment. High quality debriefing, following the approach described by Rudolph, et al., promotes reflective learning and repetitive practice. These events build in students appropriate communication techniques and excellence of performance of psychomotor skills.

Members of the faculties of the Schools of Pharmacy, Physician Assistant, and Nursing are sharing the experience of designing, executing, and continuously improving high-fidelity simulations to provide these experiences to interdisciplinary teams of students.

Methods
Every six weeks, Clinical Year PA students, senior Nursing students, and Pharmacy students in their second professional year meet in groups of five to six students. The groups work together on a pre-designed scenario to treat a patient. After ten to fifteen minutes of simulation, a debriefing session takes place with the students and faculty representatives of each program to discuss pertinent issues. The scenario is then repeated to allow the students to correct the mistakes they made in their prior attempt. Afterward, faculty and students again meet to discuss mistakes and reinforce improved performance. A final debriefing session is conducted in which each disciplines’ students and faculty meet separate from the other disciplines to discuss issues pertinent to their roles.

With between 150 and 200 health professions students in these programs, and 1 ½ hours spent with each team, the simulation events require a great deal of time and resources to undertake. Currently, each event requires two simulation suites running for two full days to accommodate all students. Moreover, at least eight faculty are needed to participate in the event. Additionally, faculty representatives meet at least twice before each event and at least once after to plan objectives and assess the achievement of those objectives.

A student survey (22 questions) was completed to assess skills, abilities, and the learning experience using the Readiness for Interprofessional Learning Scale (RIPLS). Additional questions (7) were also added to assess other objectives such as student-student, student-faculty, and student-material interactions, and to identify areas for improvement.

Results
Survey Items and Results
- Discouraged
- Uninterested
- Tired
- Critically uninterested
- No, I do not want to work with this professional anymore
- I don’t know

23. What did you like best…?
- Teamwork (collaboration-interaction)
- Debriefing (discussion-feedback)
- Critical Thinking (challenging)
- Communication

24. What...would you change...
- Discuss roles beforehand
- Clearer expectations
- Do this more often

Discussion and Conclusions
Student perception of these activities has been very positive. Feedback continues after the initial cohort of students has graduated with email communications expressing the realistic and beneficial nature of this learning process.

Challenges
- Student scheduling has been the greatest challenge we have faced as we have struggled to bring three busy, accelerated programs together every six weeks. This challenge has been met through many meetings with the course directors and faculty of the constituent programs. Nursing and Pharmacy faculty agreed to accommodate the PA End of Rotation schedule by allowing students to be absent from selected lectures. These lectures were videotaped for later viewing.
  - Increasing class size mandates the dedication of additional human and physical resources.
  - Faculty readiness is as significant as student readiness. Development opportunities must be provided with a focus on accreditation issues and proper debriefing techniques.
  - Critical considerations for the future need to include the formation of a subcommittee with representatives from each programs’ curriculum/assessment committees.

Opportunities
- This program enhanced collaboration among faculty and students and provided a venue for faculty and students alike to learn about, from, and with each other.
- Institutional support has been vital to the creation and continued success of this program. Institutional effectiveness has benefited from this collaboration.
- Accreditation requirements were met to a significant degree.
- This program has been a springboard for other interprofessional educational activities such as telephonic prescriber pharmacist interaction and nursing home visits. Other programs currently explored include Capstone projects, community outreach research opportunities, and response to medical/security emergency on campus.

References