



# Enhancing Interprofessional Education Through Technology-Supported Simulation: Lessons Learned



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# Disclosures and Objectives

- Objectives
  - State expected interprofessional practice and collaboration competencies.
  - Discuss strategies to ensure creation of a technology-supported interprofessional capstone simulation experience.
- Disclosures
  - No conflicts of interest
  - No sponsorship/commercial support



# Background

- Silo model: education *and* practice
- Lack understanding of complementary roles
- Multiple chronic conditions = fragmented care
  - Cost, safety, effectiveness, quality of life, & mortality
- Training to collaborate in interprofessional (IP) teams
  - Well-integrated teams increases physical functioning, well-being, perceptions of control, self-efficacy, quality of life, satisfaction, & reduces healthcare costs



# Purpose

- Purpose of course was to expose students to interprofessional care
- Learning outcomes evaluation assessed perceptions of effectiveness of the simulation in meeting course objectives, including synthesis of IP collaborative practice concepts



# Overview of the Course

- Team-based approach; blended online course
  - IPEC & TeamSTEPPS<sup>®</sup> for primary care
  - Shared leadership
- Innovation of course & capstone simulation was technology-supported virtual attendance
  - Most IP courses & simulations are face-to-face with focus on acute care, critical decision-making
- Crystallized application of didactic online content



# Course Expectations

- Semester-based attendance of IP course
- Nursing, medicine, nutrition, & social work
- Online didactic material, unfolding case studies in mixed IP groups
- Culminating technology-supported simulation as capstone experience
- Standardized patients



# Planning for Technology Support

- Mobile app connected to telehealth carts
  - Built-in teleconferencing devices
- Test calls completed in advance
  - Troubleshoot connection issues, ensure call reliability, assess audio/video quality
- Multiple sessions needed
  - Confirmed importance of advanced planning
- Still - unexpected complications



# Streamed Debriefing

- From room with a built-in teleconferencing system
- Multiple cameras & microphones
- Telehealth cart connected audio/visual to destination room



# Critical Steps

- Early communication
- Advanced planning & practice
- Proper equipment
- Ensuring ability to stream debriefing to overflow rooms



# Findings

- 30 students; 18 respondents (60% response)
- 88.9% reported learning expectations were met
- Technology-supported simulation was effective in meeting course objectives
  - Synthesis of IP collaborative practice concepts (66.7%)
  - Enhanced knowledge of professional roles (66.7%)
  - Improved understanding of how IP team care improves rural healthcare (66.7%).
  - IPEC objectives: core competencies (88.9%), collaboration (83.3%), professional roles (72.2%), and teamwork (83.3%).



# Lessons Learned

- One remote student connected mid-session causing some disruption
- Students in second session may have had advantage
  - Had more face-to-face time before simulation
- Use of standard release form not sufficient



# Suggested Revisions

- Stream actual simulation into additional rooms, rather than just debriefing
- Record session for later viewing
- Revise student release forms
  - Allow use of photos/videos in portfolio of standardized patients from Theater Department



# Future Plans

- Findings support continued use of courses and technology-supported simulations
  - Provides face-to-face & virtual students with opportunity to combine IPEC and TeamSTEPPS® content early in training trajectory



# Conclusion

- Profession specific approaches to clinical education limit breadth of knowledge and skills, impede development of positive attitudes to collaboration
- IP courses in general, and technology-supported simulation in particular, may begin to help resolve issues related to silo-based education



# References

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