



Case Study:

Students Receive Valuable Interprofessional Practice (IPP) Training During a Disaster Simulation Event

SIG 10: Issues in Higher Education

Summary

Faculty from a university’s health care-related programs collaboratively developed an interprofessional education (IPE) experience for their undergraduate and graduate students. By working together across departments, the faculty planned and executed a tornado simulation, where students role-played “victims” and “responders.” As they carried out their roles, students learned about collaboration and health care services during a disaster. They also learned how to communicate effectively with patients and victims.

Event Info



TORNADO

Name: School of Health Professions/
College of Health Sciences

Current Diagnosis: IPP Training
Opportunity

Meet The Team



“Victims”



Physical Therapy
Students



Athletic Training
Students



Speech-Language
pathology Students



Nursing
Students



Medical
Students



Social Work
Students

Continue for more 

Background

Faculty from health care-related university programs identified a need to provide IPE opportunities, educational experiences which help students learn the skills they need for interprofessional practice (IPP). Faculty representatives from multiple disciplines met and collaboratively developed a simulation for undergraduate and graduate students. The experience would provide students with the ability to practice and collaborate.

How They Collaborated

The health care faculty and university's coordinator of simulation experiences met to identify goals for the activity and to assign roles and responsibilities. During that discussion, the team decided that the event would simulate the aftermath of a tornado. The university's event coordinator was chosen to serve as the team facilitator.

The university's coordinator of simulation experiences secured physical space for the event and the necessary community resources (e.g., ambulance, fire, paramedic, life flight). In addition, the coordinator took care of event logistics, such as recruiting volunteers, ordering materials, and assigning student roles.

The faculty team members worked together to develop types of injuries and medical needs for students to act out during the simulation. In addition, the faculty identified needed materials and trained students on how to role-play injuries, communication disorders, brain injury symptoms, and more. The faculty also trained graduate students to be the responders during the disaster event.

Finally, the faculty developed a training module for the event, enabling students to learn more about the varying roles of each discipline.

The IPE Exercise

During the simulation, graduate students were assigned roles based on their course of study. For example, physical therapy and athletic training students responded to orthopedic-related injuries, head trauma, and open wounds. Speech-language pathology students worked with victims who had difficulty communicating. Nursing students provided medical care, and medical students whose study concentrated on cardiology and pulmonology provided care for victims requiring respiratory support. Social work students helped secure food, clothing, and shelter for victims displaced by the tornado.

The student victims wore cards displaying information about their needs and vital statistics. Responders gathered as much information as possible from the victim through examination and interviews and referred to the card as they made treatment decisions.

Faculty members observed the teams and evaluated the students' interactions, ability to fulfill professional roles, and how they worked as a team.

Outcome

After the event, the university conducted a debriefing with all participating students. In these interviews, they gathered data on the students' experiences and asked them about what they learned. The outcome data revealed that students learned about a wide range of health-related disciplines. The exercise helped them to see the "big-picture" perspective of IPP and to understand the provision of health care services during a disaster. Students also reported that the experience prompted them to consider how to engage all members of a team in meaningful ways. They said that they became more aware of communication disorders and the ways in which responders can facilitate effective communication with patients and victims.

Faculty observers noted that some students initially felt confused about their roles, but this improved throughout the course of the simulation. The students' collaboration also improved as the simulation progressed.

Ongoing Collaboration

The team will consider all feedback from students and faculty. The team's initial recommendations for future simulations include the following:

- Expand pre-simulation training, so students learn more about other professions and their roles and responsibilities.
- Get feedback from community partners, such as paramedics, firefighters, police officers, and life-flight personnel.

Case Rubric:

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History and Concerns

(Share key information gathered from team)



The various health-related programs have identified the need to provide interprofessional practice (IPE) opportunities for students. Through a collaborative effort, a team of faculty representatives from each discipline developed an IPE simulation experience for students. The experience allowed students to practice, collaborate, learn, and execute their roles during a simulated exercise.

Assessment Plan

(Determine roles/responsibilities for evaluation)

The initial team of faculty meet to identify goals for the activity. Dr. S. serves as the facilitator. As the coordinator of simulation experiences at the University, Dr. S is most familiar with available campus and community resources, logistics, and so forth, for developing a multidisciplinary IPE simulation experience. The disaster simulation event is a tornado. The team identifies potential dates that will be presented to university administrators. **The following roles and responsibilities are discussed and assigned:**

Roles for Entire Team

- Develop goals for the event
- Identify and develop a tool for assessing outcomes

Assessment Plan

(Determine roles/
responsibilities for
evaluation)

Roles for Simulation Experience Coordinator

- Secure physical space; select buildings either on campus or in community
- Secure community resources (e.g., ambulance, fire, paramedic, life flight) for participation in the event
- Communicate event schedule to campus community
- Coordinate development of “patient” cases for students to role-play during the simulation event
- Recruit volunteers for check-in, moulage (i.e., an impression or cast made for use) event monitoring, and clean-up
- Order materials needed for moulage; triage areas based on each discipline’s needs
- Assign students to areas of responsibility (either “in the field” or in the triage area), to teams, and to roles as “victims”
- Recruit volunteers and materials for debris staging, power outage, and so forth

Assessment Plan

(Determine roles/
responsibilities for
evaluation)

Roles for All Faculty

- Develop cases (types of injuries, medical needs, vitals, communication modalities, etc.) that will serve as the guides for students to “role-play” during the simulation
- Identify needed materials for utilization during the disaster simulation: bandages, IVs, back boards, communication boards, splints, breathing support, stethoscopes, and so forth
- Train students how to role-play injuries; communication disorders (fluency, unintelligible speech, aphasia, autism); symptoms of brain injury (confusion, disorientation); anxiety; and so forth
- Train graduate-level students to be the responders during the disaster event, including role-playing as those individuals providing medical care, those assisting with victims, those helping to move the victims to triage areas, those providing comfort, those offering companionship, and those providing communication assistance
- Develop an in-service training module to provide to students in advance of disaster simulation (i.e., SLP faculty will have SLP graduate students create a module for students of other disciplines; the module will explain how to communicate with a patient who has a communication disorder)
- Develop a pre-disaster simulation event, where students learn more about the roles of all the disciplines to increase familiarity for the event

Assessment Results

(Summarize key diagnostic results)

Event is executed. The tornado hit.

Student victims perform their roles. Graduate student responders carry out patient care in the stations that are set up in the triage area and also tend to victims “in the field.” Faculty members serve as observers of the teams and witness interactions, responses to victims, role-players’ ability to fulfill professional roles and responsibilities, role-players’ ability to work as members of a team, and so forth.



The **“victims”** role-play individuals who sustain injuries and individuals with communication disorders. Other information about vital statistics and needs is captured on a card worn by the victims. Responders gather as much information from the victim as possible, through examination and interview, but also refer to the card to then make treatment decisions. For example, responders gather information and make assessments about conditions related to high blood pressure, dehydration, confusion, brain injury, and so forth.



Physical therapy students and **athletic training students** respond to orthopedic-related injuries, head trauma, open wounds, and so forth.



Speech-language pathology students respond as an extra set of “hands” and provide as-needed support services in the triage areas and in the field. They also facilitate communication for victims who had difficulty communicating with the care providers—for example, answering questions and providing alternate means of communication.

Assessment Results

(Summarize key diagnostic results)



Nursing students provide medical care, including taking vitals, dispensing meds, and so forth.



Medical students whose study concentrate on cardiology and pulmonology provide care for those victims requiring respiratory support.



Social work students help secure food, clothing, and shelter for those who have been displaced by the tornado.

IPP Treatment Plan

(Discuss, reflect, and modify recommendations to develop a coordinated plan)

The university conducts a debriefing with all of the students who participate. Faculty members moderate the debriefing sessions. **Outcome data is gathered on the following topic areas:**

- Overall experience
- Learning about other disciplines roles, responsibilities, and job functions
- Team collaboration
- Successes
- Challenges
- Impact for future careers in health care

Treatment Outcomes

(Discuss results of treatment)

A review of the student debriefing reveal the following conclusions:

- Students learn more about the roles and responsibilities of a wide range of health-related disciplines.
- This simulation exercise help them realize the “big-picture” perspective of IPP, collaboration, and the provision of health care services in a critical scenario/ disaster.
- Students report that the experience forced them to consider how to engage all members of a team in meaningful ways, consistent with their training and scope of practice.
- Students learn how, within the context of a disaster, to execute medical care or related services that fall within their scope of practice.
- Students become more aware of communication disorders and the variety of ways in which responders can facilitate effective communication with patients and victims.

A review of faculty observer feedback reveal the following conclusions:

- There was initial confusion among students regarding the roles of team members from other disciplines (i.e., “who was doing what”), but this improved throughout the simulation.
- Collaboration improved throughout the execution of the disaster simulation.
- Speech-language pathology graduate students were utilized too frequently as interpreters for non-English-speaking patients and victims.

Team Follow-Up

(Determine meetings & communication plan)

The team will consider all feedback from students and faculty. Initial recommendations include the following:

- Enhance pre-simulation training regarding various disciplines and the roles and responsibilities of various parties.
- Begin developing the “scenario” for next year.
- Get feedback from community partners, such as paramedics, firefighters, police officers, and life-flight personnel.

Acknowledgement

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Carol Koch, EdD, CCC-SLP
Special Interest Group 10 (SIG 10): Issues in Higher Education

Citations

American Speech-Language-Hearing Association. (n.d.). Students receive valuable interprofessional practice (IPP) training during a disaster simulation event.

<https://www.asha.org/practice/ipe-ipp/case-studies/case-study-12/>

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