

# DISASTER DAY: CREATING AN OPTIMAL INTERPROFESSIONAL CLINICAL LEARNING ENVIRONMENT THROUGH SIMULATION

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## BACKGROUND

- Interprofessional education (IPE) is an accreditation standard for most health science disciplines
- Today's healthcare providers need to be able to respond to mass casualty events
  - Simulation is the only way to recreate such an event in a safe and effective manner
  - Simulation can provide an effective IPE platform and environment
- Texas A&M's Disaster Day (DD) is the nation's largest student-led interprofessional emergency response simulation
- DD has occurred annually in College Station, TX since 2008
- The event was created in response to training gaps identified after Hurricanes Katrina and Rita
- DD 2018 was the first event that was intentionally interprofessional in all aspects of planning and execution
- Students from medicine, nursing, pharmacy, public health, and veterinary medicine planned and implemented event with interprofessional faculty oversight
- Students were located at multiple sites across the state



## RESULTS

- Engaged in event planning and simulation day organization
- Developed simulation and designation of student participant roles
  - 3 simulation sites established for enhancing realism of primary disaster event
    - Train wreck for extraction and triage
    - Field hospital for acute patient care
    - Operations command center
- Recruited student participants for simulation day
- Participated in DD as mock patients, providers, or incident command

- 650 students participated + 70 faculty/staff volunteers in DD simulation

ACTIVITY	IPEC COMPETENCIES	ACCREDITATION STANDARDS
Planning Meetings	RR3, RR6, CC1, CC4, TT1, TT2, TT7	ACPE: 11.2 AACN B: EC1.7, EC2.1, EC3.6, EC4.5, EC6.1-6.6, EC7.9, EC8.3, EC9.14, EC9.20, EC9.22
Creation of simulation scenarios	VE3, VE4, VE8, RR2, RR3, RR6, RR9, CC1, CC4, CC6, CC7, TT6	ACPE: 11.1, 11.2 AACN B: EC1.7, EC2.1, EC3.6, EC4.5, EC6.1-6.6, EC7.9, EC8.3, EC9.14, EC9.20, EC9.22 CEPH: D2.1, D2.18, D2.19, D2.21, D2.22
Interpersonal conflicts	VE5, VE8, VE9, RR2, RR8, CC5, CC6, TT6, TT7, TT8	ACPE: 11.1 AACN B: EC1.7, EC2.1, EC3.6, EC6.3, EC8.3, EC9.14, EC9.20, EC9.22 CEPH: D2.17, D2.21
Simulation event Disaster Day	VE5, VE6, VE7, VE10, RR1, RR3, RR4, RR5, RR7, RR9, RR10, CC1, CC2, CC3, CC4, CC7, CC8, TT3, TT5, TT7, TT11	ACPE: 11.3 AACN B: EC2.1, EC3.6, EC4.5, EC6.1-6.6, EC7.3-7.7, EC7.9-7.10, EC7.12-7.13 EC8.3, EC9.14, EC9.20, EC9.22 CEPH: D2.21
AM Simulation huddle and debrief	VE7, RR8, CC4, CC5, CC6, TT7, TT8, TT9, TT10	ACPE: 11.3 AACN B: EC3.6, EC4.5, EC6.1, EC6.4, EC6.6, EC8.3, EC9.14, EC9.20, EC9.22 CEPH: D2.21

## CONCLUSIONS

- DD 2018 demonstrated that simulation could provide an ideal IPE environment
  - Texas A&M is creating an interprofessional emergency response team that will incorporate DD as part of team training
  - Student feedback was positive and DD 2019 will build on feedback
  - DD 2019 will include other health disciplines through partnerships with community colleges (local EMS programs)
- DD met many IPE accreditation standards but there is room for refinement



## LESSONS LEARNED

- It is possible to repurpose an established activity with intentional IPE
- Planning should begin sooner to accommodate the logistical challenges of such a massive event
- Campus diversity was good in committee composition but leadership needs to be local
- TeamSTEPPS provides a common language
- Mapping is part of Plan-Do-Check-Adjust (PDCA) Quality Management to ensure students graduate team ready
- On October 1, 2017 there was a mass shooting in Las Vegas. Nicole Mancuso, an A&M graduate, was working in the ER.
  - "It was complete chaos....you have to stay calm in these situations, for the sake of the patient. At the College of Nursing, I was involved in Disaster Day, where the simulation taught me how to appropriately triage in cases of mass casualty and how to treat patients properly"\*



## DESIGN

- Faculty Planning Committee
  - Planning began in August for simulation day in February
  - Attended Train-the-Trainer Interprofessional Faculty Development Program (T3-IFDP), with a focus on restructuring DD to engender greater interprofessionalism
  - Mapped event activities to IPEC competencies, accreditation standards, and entrustable professional activities
  - Recruited additional faculty to oversee training and to conduct DD evaluation with student volunteers
  - Supervised/mentored Student Planning Committee
- Student Planning Committee
  - 60 students from participating colleges
  - Subcommittees: administration, finance, PR/media, case development and training, volunteers, supplies, and moulage



### ACKNOWLEDGEMENTS

Photo Credit: Daniel Freeman, BFA  
Design Credit: Andrew Ramirez

## REFERENCES

- Accreditation Council for Pharmacy Education. (ACPE) (2015). Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Standards 2016. Chicago, IL. <https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf>
- American Association of Colleges of Nursing. (2008). The Essentials of Baccalaureate Education for Professional Nursing Practice. (AACN B) <http://www.aacnursing.org/Portals/42/Publications/BaccEssentials08.pdf>
- American Association of Colleges of Pharmacy. (AACP) Core Entrustable Professional Activities for New Pharmacy Graduates. <https://www.aacp.org/resource/entrustable-professional-activities-epas>
- "Choudhury, Tamim. "Looking Back: Nurse and former student reflects on Las Vegas Shooting". Vital Record News from Texas A&M University Health Science Center. April 30, 2018. <https://vitalrecord.tamhsc.edu/looking-back-nurse-and-former-student-reflect-on-las-vegas-shooting/>
- Council on Education for Public Health (CEPH) (2016). Accreditation criteria: Schools of Public Health & Public Health Programs (Amended October 2016). <https://ceph.org/assets/2016.Criteria.pdf>
- Interprofessional Education Collaborative. (IPEC) (2016). Core Competencies for Interprofessional Collaborative Practice: 2016 Update. Washington, DC: Interprofessional Education Collaborative. [https://ipecollaborative.org/uploads/IPEC-2016-Updated-Core-Competencies-Report\\_final\\_release\\_PDF](https://ipecollaborative.org/uploads/IPEC-2016-Updated-Core-Competencies-Report_final_release_PDF)