



THE OHIO STATE UNIVERSITY

**TRANSFORMING CULTURE THROUGH ECLIPSE:
EDUCATION FOR CLINICAL INTERPROFESSIONAL SIMULATION
EXCELLENCE PROGRAM**

Excellence in Research, Teaching, and Service since 1929





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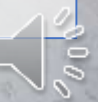
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LEARNING OBJECTIVES

- Discuss a framework for an interprofessional patient simulation program.
- Describe methods for evaluating the effectiveness of interprofessional simulation experiences.
- Describe methods for completing online interprofessional simulation experiences for students in healthcare professional programs.





WHAT is ECLiPSE?

ECLiPSE is an interdisciplinary group comprised of OSU faculty. We develop and direct **interprofessional educational experiences** that allow students from ten health professions to collaborate on simulated patient case scenarios that **promote interprofessional learning and practice**.



“The goal of Interprofessional learning is to prepare all health professions students for *deliberatively working together* with the common goal of building a safer and better **patient-centered and community/population-oriented** U.S. health care system”

- Core Competencies for Interprofessional Collaborative Practice, 2011



SIMULATION LEARNING OBJECTIVES

- Build a climate of **mutual respect** and **understanding** for other health and social science professionals
- Better **understand the roles** and responsibilities of other health and social science professions
- Improve **interprofessional communication** skills
- Increase proficiency in **developing interprofessional plans of care** which can improve patient outcomes across the lifespan





ECLiPSE FRAMEWORK

1) IP Leadership Team: Faculty members representing ECLiPSE participant programs are members of the leadership team and meet regularly to :

- Develop Cases
- Schedule Simulation Week fall and spring semesters, schedule students
- Communicate with their individual departments about the ECLiPSE program and to secure approval for class absences, as needed.
- Attend summer retreat (review outcomes, modify procedures as needed)
- Disseminate program!





2.) **Standardized Patients:** Actors trained to represent an individual with low health literacy and complex medical conditions





3.) Student IP Teams: Lead by the NP or a medical student, each team manages two cases.

- 3 simulations running concurrently; 2 hours, 45 minutes in length
- Medical chart binder, white boards for orders
- Approximately 400 students participate each semester





4.) **Facilitators:** Clinicians & faculty are recruited from each discipline to mentor students during the simulation.

Facilitators



Bringing the Case to Life Through Simulation Fidelity

Structure of a *realistic simulation* requires that:

- Students are allowed to investigate freely and employ questions in any sequence
- Students should be given clinical information over time during the simulation.
- Environment; script development, medical moulage, realistic







CURRENT CASES

Jill

- Found down at home
- limb ischemia resulted in amputation
- Hx: malnutrition, drug use, schizophrenia, bipolar

Chrissy

- 21 y/o female with h/o I&D of wrist (MRSA)
- General malaise, malnutrition, rash, respiratory distress
- Hx: heroin abuse, lives with a friend, vapes daily, 3 y/o dtr but no custody

Willy

- 46 y/o male found down
- Altered mental status, SOB
 - Homeless vet
- Hx: PTSD, ETOH abuse, HepC

Ann

- 25 y/o female s/p MVA
- femur fracture, splenectomy, respiratory distress
- Single, lives with roommate, works in retail





Interprofessional Simulation Session Schedule

- **Orientation – All Student Participants** 15 min
- **Prepare for First Interprofessional Round** 30 min max
 - Chart Review and Discussion
 - Visit Patient OR Speak With Another Profession
- **First Interprofessional Round**
 - Lead by Medicine or Nurse Practitioner Students
 - Update patient status; Profession reports and Recommendations; Summarize Plan; Orders on white board
- **Patient Plan Implementation** 30 min max
 - Profession Huddles – Discuss your Implementation with facilitators
 - Complete assessments and interventions
- **Prepare for Second Interprofessional Round** 15 min max
 - Plan Implementation Review and Discussion
- **Second Interprofessional Round** No later than one hour remaining
 - Lead by Medicine or Nurse Practitioner Students
 - Update patient status; Profession reports and Recommendations; Summarize Plan; Orders on white board
- **Simulation Debrief in Main Room**
 - Complete PACT Evaluation
 - Faculty Led Simulation Discussion

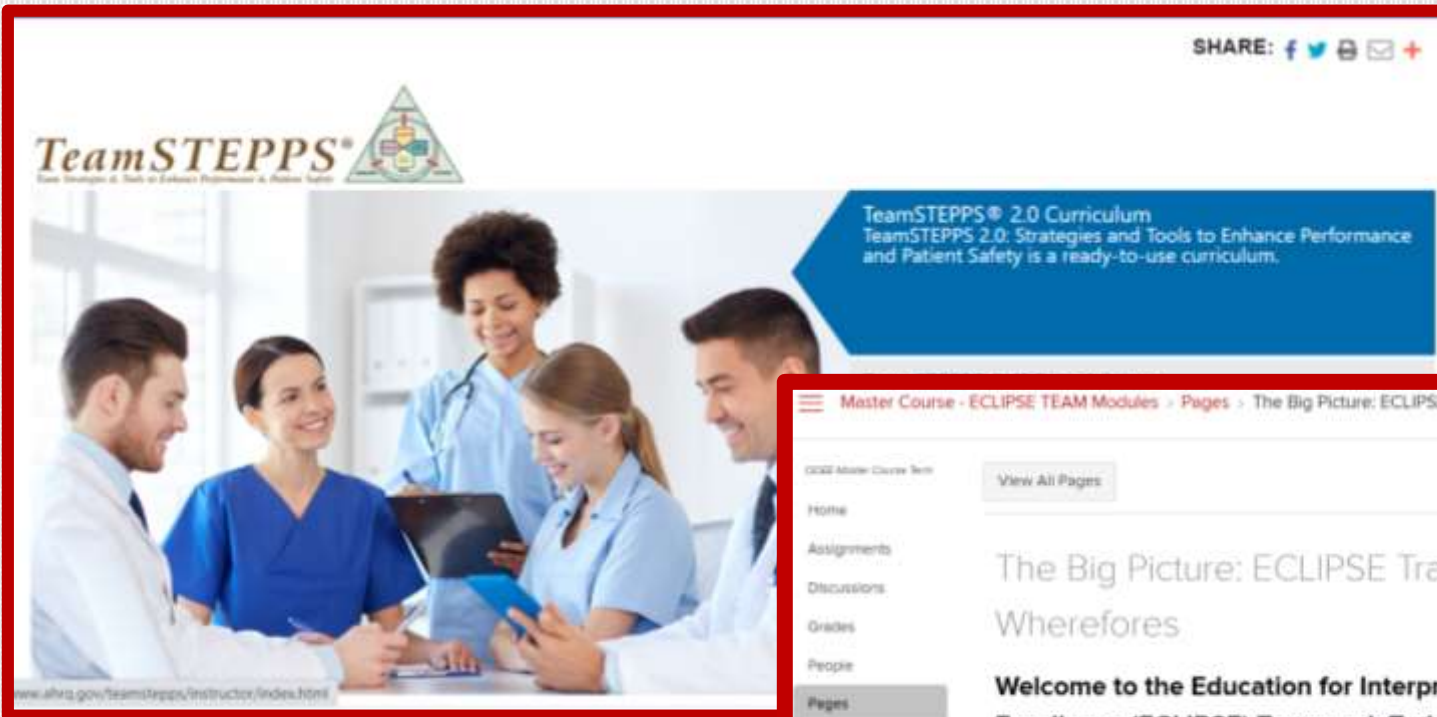
Complete SET Evaluation



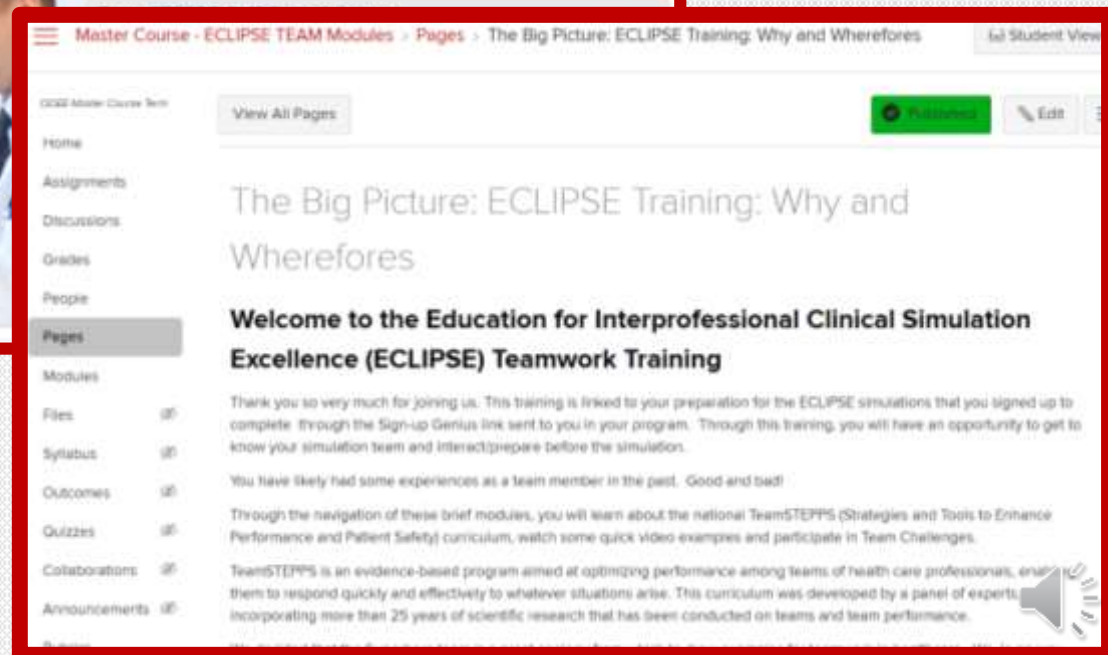
PREPARATION FOR SIM WEEK:



PREPARATION FOR SIM WEEK: Completion of TeamSTEPPS Training



TeamSTEPPS2.0



Impact of COVID-19

- February 2020: Completed F2F Simulation week
- Summer 2020: Held virtual retreat to brainstorm and plan for virtual simulated experiences
- Fall 2020 & Spring 2021: Completed IP Simulations utilizing zoom and virtual breakout rooms. Primary changes include:
 - Holding 1 simulation at a time
 - Each IP student team works one case (rather than two)





Virtual Interprofessional Simulation Session Schedule

- **Orientation - Overview Objectives and Logistics** 15 min
- **Prepare for First Interprofessional Round** 30 min max
 - Chart Review and Discussion - Your Profession's Breakout Room
 - Visit Patient OR Speak With Another Profession - Main Zoom Room
 - Raise Your Zoom Hand
- **First Interprofessional Round**
 - Lead by Medicine or Nurse Practitioner Students
 - Update patient status; Profession reports and Recommendations; Summarize Plan; Orders in Chat
- **Patient Plan Implementation** 30 min max
 - Profession Huddles – Discuss your Implementation - Profession Breakout Rooms
 - Patient Plan - Detail/Describe (Step By Step) Patient Treatments - Main Room
 - Raise Your Zoom Hand
- **Prepare for Second Interprofessional Round** 15 min max
 - Plan Implementation Review and Discussion – Breakout Rooms
- **Second Interprofessional Round** No later than one hour remaining
 - Lead by Medicine or Nurse Practitioner Students
 - Update patient status; Profession reports and Recommendations; Summarize Plan; Orders in Chat
- **Simulation Debrief in Main Room**
 - Complete PACT Evaluation
 - Faculty Led Simulation Discussion

Complete SET Evaluation





Patient in Technology Learning Complex on Zoom.
Moderator and Co-Moderator on zoom in room, socially distanced.

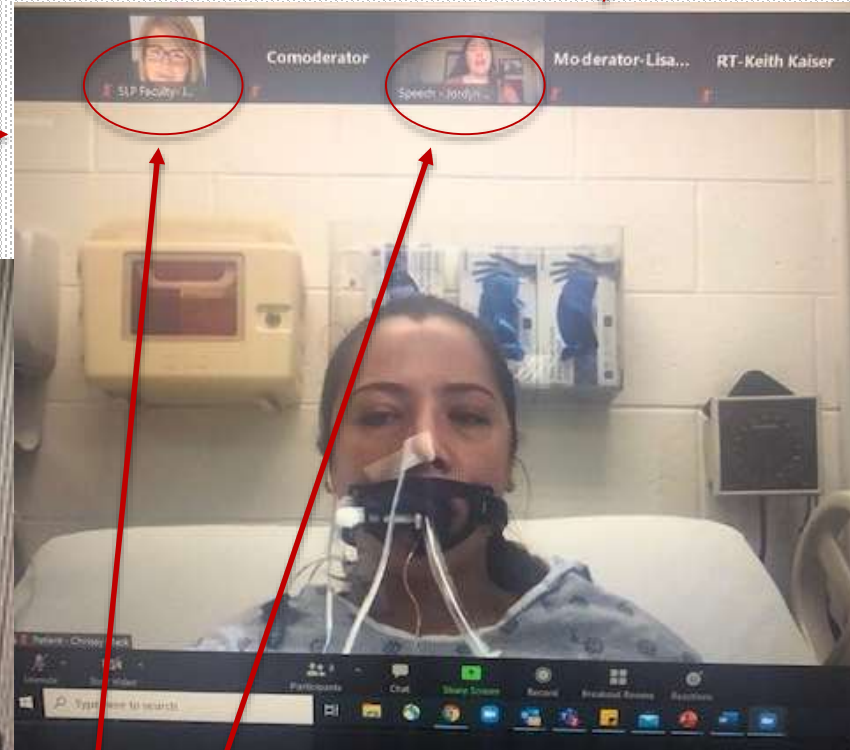




Simulation Moderator

- Directs simulation
- Manages simulation schedule
- Provides coaching to patient actor, as needed

Patient
Spotlighted
throughout
simulation



Speech student conducting assessment.
SLP faculty mentor observing.





Co- Moderator (Technology Learning Complex staff member)

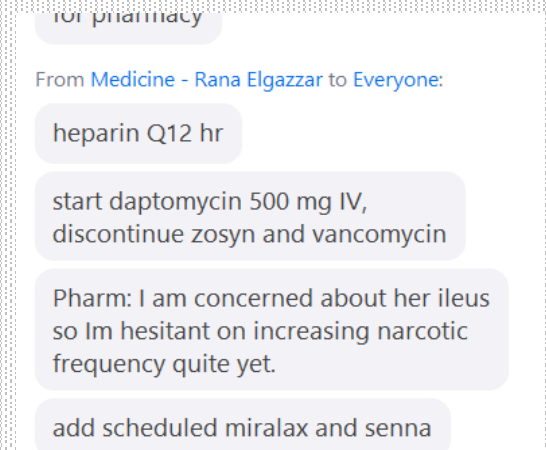
- Manages breakout rooms and chat
- Handles technical difficulties, questions from team
- Responds to 'Group Me' messages (enables clinical facilitators to communicate during simulation



“Profession-Name” helps to facilitate placing participants in breakout rooms



Orders placed in the chat.



Student and faculty mentor in breakout room discussing case.



Outcome Measures used to Evaluate Simulation Effectiveness





Themes:
Roles
Teamwork
Shared Learning
Benefit to self
and others

Please complete the following questionnaire. <i>Circle the number that best corresponds with your opinion.</i>	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Learning with other students will make me a more effective member of a healthcare team.	5	4	3	2	1
2. Patients would ultimately benefit if health sciences students worked together.	5	4	3	2	1
3. Shared learning with other health sciences students will increase my ability to understand clinical problems.	5	4	3	2	1
4. Communications skills should be learned with other health sciences students.	5	4	3	2	1
5. Teamwork skills are vital for all health sciences students to learn.	5	4	3	2	1
6. Shared learning will help me to understand my own professional limitations.	5	4	3	2	1
7. Learning between health sciences students before graduation would improve working relationships in the clinical environment.	5	4	3	2	1
8. Shared learning will help me think positively about other health care professionals.	5	4	3	2	1
9. For small-group learning to work, students need to respect and trust each other.	5	4	3	2	1
10. I don't want to waste time learning with other health sciences students.	5	4	3	2	1
11. It is not necessary for undergraduate and postgraduate health sciences students to learn together.	5	4	3	2	1
12. Clinical problem solving can only be learned effectively with students from my own program.	5	4	3	2	1
13. Shared learning with other health sciences students will help me to communicate better with patients and other professionals.	5	4	3	2	1
14. I would welcome the opportunity to work on small group projects with other health sciences students.	5	4	3	2	1
15. I would welcome the opportunity to share some generic lectures, tutorials or workshops with other health sciences students.	5	4	3	2	1
16. Shared learning and practice will help me clarify the nature of patients' or clients' problems.	5	4	3	2	1
17. Share learning before and after graduation from my program will help me become a better learner.	5	4	3	2	1
18. I am not sure what my professional role will be.	5	4	3	2	1
19. I have to acquire much more knowledge and skills than other students in my own program.	5	4	3	2	1
20. I feel confident providing care for a ventilated patient.	5	4	3	2	1



Prebrief	Rated by first year, second-semester SLP graduate Students	1-3
	Prebriefing increased my confidence"	2.56
	"Prebriefing was beneficial to my learning"	2.72
	"I am better prepared to respond to changes in my patient's condition"	2.80
	"I developed a better understanding of the pathophysiology"	2.59
Simulation	"I am more confident of my assessment skills"	2.80
	"I felt empowered to make clinical decisions"	2.67
	"I developed a better understanding of medications"	2.10
	"I had the opportunity to practice my clinical decision-making skills"	2.83
	"I am more confident in my ability to prioritize care and interventions"	2.74
	"I am more confident in communicating with my patient"	2.89
	"I am more confident in my ability to teach patients about their illness and interventions"	2.72
	"I am more confident in my ability to report information to the health care team"	2.85
Debrief	"I am more confident in providing interventions that foster patient safety"	2.65
	"I am more confident in using evidence-based practice to provide care"	2.59
	"Debriefing contributed to my learning"	2.81
	"Debriefing allowed me to verbalize my feelings before focusing on the scenario"	2.74
	"Debriefing was valuable in helping me improve my clinical judgment"	2.81
	"Debriefing provided opportunities to self-reflect on my performance during simulation"	2.83
	"Debriefing was a constructive evaluation of the simulation"	2.81
	Average	2.71



The PACT was developed for students participating in team-based interprofessional training simulations. Three types of observational tools; Novice, Expert, and Video. Self-report rating, evaluating the 5 domains of TeamSTEPPS.

- Team Structure
- Leadership
- Situation Monitoring
- Mutual Support
- Communication



Students complete PACT following each simulation.
One member of leadership team observes simulation and completes PACT.
Inter-rater reliability obtained through video analysis.

Outcomes:

- ✓ Team Structure, Leadership, Communication displayed in simulation
- ✓ Situation Monitoring and Mutual Support not always evident to raters





Pre-Post COVID Outcomes

PACT Novice	Team Structure	Leadership	Situation Monitoring	Mutual Support	Communication
Fall 2020 (n= 417) Virtual	4.48	4.91	4.38	4.49	4.49
Fall 2019 (n= 237) In person	4.67	4.69	4.41	4.70	4.71

Length of Time: comments suggest the students spend an average of 30 mins to 1 hour per week.

Strengths: videos, prep, learning from one another in sim, own pace, one place to learn about other professions, organized, well planned

Opportunities for Improvement: more interaction online before sim, prepare beforehand, more reasons to interact in Carmen, time management





- Enjoyed working with other professions and expanding my education with them. **-RT student**
- I learned a lot about new professions and believe additional simulations such as this would be beneficial to my learning. **-OT student**
- I really appreciated the opportunity to work with other professions that I do not typically encounter. **-Pharmacy student**
- I feel this is a great experience for all healthcare workers to build good collaborative relationships and to build mutual respect. **-Nursing student**
- I really enjoyed this experience and it improved my confidence in interacting with the patient and with the healthcare team! **-PT student**
- Loved meeting other professions and practicing communication! **-SLP student**



We would like to acknowledge the ECLiPSE Leadership Team for their time and dedication to this project!

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Thank you for your time and attention today.
Be safe and well.
Go Bucks!

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References:

- Institute of Medicine (2015). Measuring the impact of interprofessional education on Collaborative practice and patient outcomes. Washington, DC: The National Academies Press.
- Interprofessional Education Collaborative (2011). *Core Competencies for Interprofessional Collaborative Practice*. Retrieved from: <http://www.aacn.nche.edu/education-resources/ipecreport.pdf>
- Reeves, S, Perrier, L, Goldman, J, Freeth, D, Zwarenstein, M. (2013). Interprofessional education: Effects on professional practice and healthcare outcomes (update). *Cochran Database of Systematic Reviews 2013* (3) doi:10.1002/14651858.CD002213.pub3.
- Parsell, G. and Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education*, 33(2), 95-100.
- Chiu, C.J., Brock, D., Abu-Rish, E., Vorvick, L., Wilson, S., Hammer, D., Schaad, D., Blondon, K., and Zierler, B. Performance Assessment of Communication and Teamwork (PACT) Tool Set. Retrieved 10-24-16 from: <http://collaborate.uw.edu/educators-toolkit/tools-for-evaluation/performance-assessment-of-communication-and-teamwork-pact-too>
- Chiu, C. J. (2014). Development and Validation of Performance Assessment Tools for Interprofessional Communication and Teamwork (PACT) (unpublished doctoral dissertation, University of Washington).
- Leighton K, Ravert P, Mudra V, Macintosh C. Updating the Simulation Effectiveness Tool: Item Modifications and Reevaluation of Psychometric Properties. *Nurs Educ Perspect*. 2015 Sep-Oct;36(5):317-23. doi: 10.5480/15-1671. PMID: 26521501.

