Building an Interprofessional Experience for In-person and Online Learners: The STRICE Simulation

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Disclosures

• Funding for development of the online syphilis simulation was provided the UAMS Office of Interprofessional Education.

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Objectives

- Describe the need for online simulation in order to achieve the Interprofessional Education Core Competencies.
- Outline the process of developing an online simulation project to allow for an asynchronous experience.
- Compare the post experience perceived perceptions of interprofessional competencies among the in person and online simulation participants.
- Identify techniques to improve the success of online simulation experiences.

Interprofessional Curriculum

Interprofessional Education

"When students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes." (WHO, 2010)

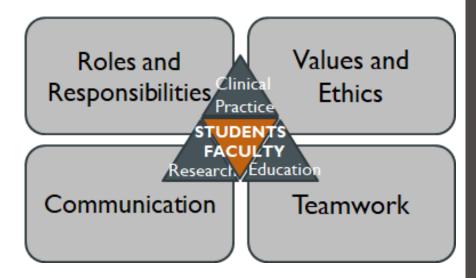
IHI Triple [Quadruple] Aim



Preparing the workforce to:

- learn together
- practice together
- research together

Interprofessional Education Cooperative (IPEC) Domains





QUADRUPLE AIM IPE CURRICULUM FRAMEWORK

Interprofessional

EXPOSURE

EXPOSURE WORKSHOP

(~3 hours)

This introductory ½ day workshop includes exposure to the key concepts of:

- The Quadruple Aim
- IPEC Domains: Roles and Responsibilities, Effective Communication, Values and Ethics, Teamwork
- Patient and Family Centered Care
- Health Literacy
- Social determinants of health and Arkansas' most prevalent health disparities
- Cultural competency
- Research

(~3-4 hours)

- Health economics: the role of the provider, the payers, and society
- Professional Wellness

Transition (EXPOSURE to

IMMERSION): bridge IP activity

Participate in (1) UAMS Common

Health and Wellness Center or other

AND complete a reflection.

Book/movie, (2) volunteer at the 12th Street

interprofessional free or reduced cost clinic,

or (3) observe interdisciplinary rounds/clinics

TRIPLE AIM PROJECT

(~6-8 hours)

Interprofessional teams (3-8 students) participate in 1 of 3 Triple Aim Tracks:

IMMERSION

- Patient care improvement;
- Populations health improvement; or
- Health care cost reduction.

Broad solicitation for project ideas from: (1) UAMS educational and clinical departments; (2) Community-based organizations; and (3) Local businesses with an interest in health care and the triple aim (insurance agencies, corporations with wellness programs, etc.).

Teams develop a structured and complete proposal to meet triple aim goals and objectives. Teams present at an event to compete for the best proposal.

SIMULATION ACTIVITY

(~1-2 hours)

Teams participate in an interprofessional simulation session.

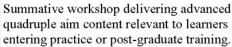


www.ipe.uams.edu

COMPETENCE

COMPETENCE WORKSHOP

(~2.5 hours)



- Up-to-date literature review to support IPC practice, Health Literacy, Patient and Family Centered Care, Cultural Competency, Social Determinants of Health, and Research initiatives.
- Quality improvement processes and initiatives that exist to affect system change.

REQUIRED "PRACTICE" ACTIVITY

(~2-4 hours)

Completion of a service learning project/activity or work with an IP team -Health Fair, IP Clinic, IP rounds, IP research team, IP regulatory team, etc. AND complete a reflection

STUDENT EDUCATOR ACTIVITY

(~2-4 hours)

- Co-facilitators for an IPE Event—Exposure Workshop, Exposure Bridge Activity (Movie night, etc.), Triple Aim Project Proposal, Simulation, etc.
- Serve on Student Advisory Board (12th St HWC or North Street, etc.)
- Provide a seminar on health professions as a career opportunity to students in K-12 education/Pre-Health studies.
- Provide a seminar on a practice-related topic (inservice, case conference topic presentation, education booth/fair, etc.)
- Presentation of original research (APE, ILE, poster/ platform presentation, etc.)
- Other activities by approval—submit idea to the Director of Interprofessional Curricular Affair. AND complete a reflection.



The Challenge

- Developing and implementing meaningful, inclusive IP education activities for students is essential to the success of IP curricula.
 - Relevant experiential learning activities
 - With real world application

qualitative study

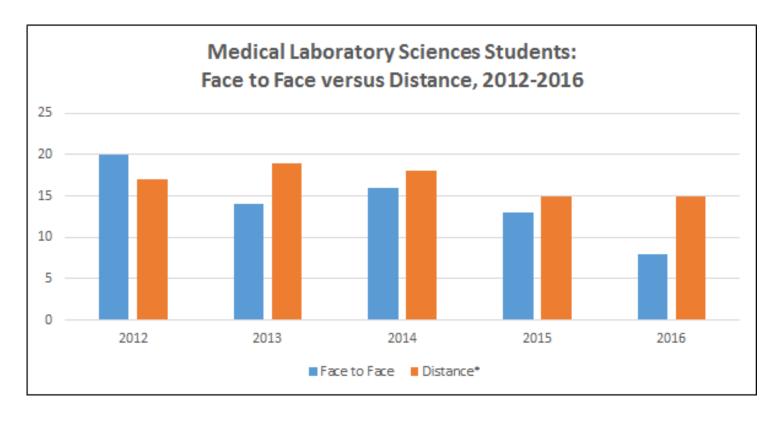
- Common practice of the participating professions
- Where can we access these activities?



Need for Online Accessibility

- Higher education institutions have seen increase in enrollment for online/distance education.
 - 5,954,121 students enrolled in any distance education courses at degree-granting postsecondary institutions
 - Students taking at least one online course (Allen, 2017)
 - Fall of 2002 ---- 9.6%
 - Fall of 2015 --- 29.7%
- At UAMS Medical Laboratory Sciences program is offered at a distance.
 - Program developed to serve the needs of the State.
 - Shortage of qualified laboratory professionals is a national issue.

Our Need for Online Simulation



MLS students by the numbers between 2012-2016: 117 total in this period (58% distance)

^{*}Distance includes hybrid program (some but not all online courses) and MLT-to-MLS program (mostly online enrollment)

Our approach = STRICE

Syphilis Testing Result Interprofessional Counseling and Education simulation

- A meaningful interprofessional (IP) learning activity
- Highlights the role of medical laboratory scientist's contributions to patient care
- Cultivates essential IP communication skills among future health professionals
- In-person and online delivery formats

In-Person experience

1) Pre-scenario briefing



2) IP team plan



3) Standardized patient encounter

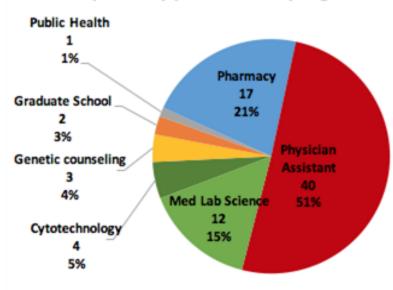


4) Debriefing/Evaluation

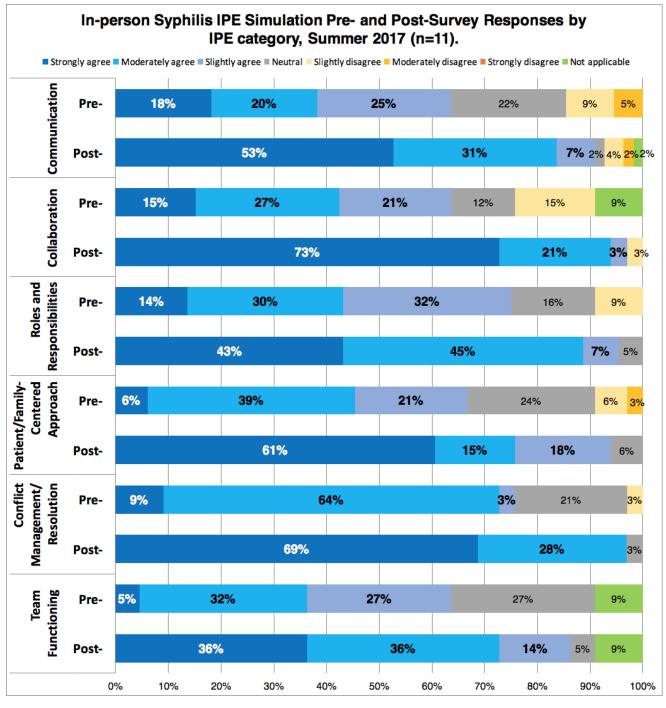


Outcomes for STRICE Sim In-person Event 1

STRICE In-person Simulation, Fall 2016 Participants by professional program



PERCEPTIONS of IPE SURVEY RESULTS (n=79)	Avg.
Learning with other professional students was valuable.	4.74
Activity enhanced my appreciation of interprofessional teamwork.	4.77
Activity increased my knowledge of another profession/s.	4.67
Activity improved my teamwork skills.	4.67
Perspectives from all participating professions were represented.	4.55
I acknowledged and respected another profession/s perspective.	4.74
I identified professional differences in a positive manner.	4.59
I listened and acknowledged ideas without judgement.	4.72
I clearly defined my role and responsibilities within the team.	4.37
Learning activity helped me to identify where I can improve my communication skills with other healthcare professionals.	4.74
Learning activity helped me to identify where I can improve my communication skills with patients/public.	4.78
I feel more comfortable in my ability to educate about laboratory tests that I did prior to this activity.	4.04
This activity demonstrated the value of providing team-based education.	4.6



EVENT 2.
Total <u>Agreement</u>
(Strong, Moderate,
Slight)

64% 91%
64% 97%
75% 95%
67% 94%
76% 97%
64% 86%

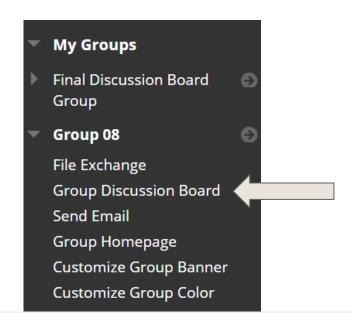
Transitioning to Online

- Platform: Blackboard© learning management system
- Participants: Enrolled and assigned to one of ten IP groups with one to two faculty moderators
 - 62 students from Laboratory Sciences, Public Health, Nursing Practice, Audiology and Nuclear Medicine and nine faculty facilitators.
- **Timeline:** 5-week asynchronous online experience with video use and discussion boards required video editing with labels added to indicate respective professions; created detailed instructions for each step

- 1) Confidentiality agreement
- 2) Pre-experience survey
- 3) Introduction to Simulation video



- 4) Pre-reading materials
- 5) Introductory post to Group Discussion Board



Grp8Q1

This post should include your name, college and program, place of origin, and a brief description of your reason for choosing your respective profession. Please also include in your introduction statement how often you directly interact with patients.

1) Discussion of patient encounter via Group Discussion Board

Week 1

a. What do you want to ask the patient?

How many sexual partners has the patient had. Is she still with her same partner or does she have multiple partners? Has she had any rashes that are non-itchy, possibly on the hands? Or any sores, that may look like ingrown hair, sores or multiple sores or a zipper cut?

b. What are possible outcomes in this case?

Possible blindness. The patient fetus can contract syphilis, have a low birth weight, go into preterm labor, or stillborn. If the patient is not treated and the infant contracts syphilis there at high risk for cataracts, deafness, seizures or even death.

c. What special circumstances may need to be considered with this patient?

How far the STD has progressed in the patient and if the patient has transferred it to her fetus.

d. What do you need to know before finalizing your treatment plan?

RE: Week 1

The Wb Hello

I'm and my major is on Nuclear Medicine. I find your post very interesting; however, I am uncertain as to my role for this patient with regard to her diagnosis. I am all for helping establish a plan for the patient encounter. I have no problem asking the patient questions regarding her medical history and any information that can help establish a plan of care; however, diagnosis or informing the patient of the diagnosis is something that I do not believe is in my scope of practice. A doctor or nurse would be more appropriate. Thoughts?

2) Assignment to complete: Patient Scenario/Plan

1) View & Evaluate Recorded Team Meeting & Patient Encounter videos.





- 2) Discussion of team performance with Group via Group Discussion Board.
 - a. What did the team in the video do well in their team meeting?
 - b. What could the team have done differently in their team meeting?
 - c. What is your overall impression of the team meeting?
 - d. What surprised you in the patient encounter?
 - e. What are your thoughts regarding the patient's reaction to the laboratory result?
 - f. What did the team do well in the patient interaction?
 - g. What could the team have done differently in the patient interaction?
- 3) Review of Group Patient Scenario Plan (script/outline)

3) Revised Group Patient Scenario Plan (script/outline)

Setting up

P Knowledge

Iı

Emotions

- *** will at this point reassure the patient and explain that even though the news is shocking, the disease is treatable with a high percentage of positive outcomes.
- www.will encourage the patient to follow through with the treatment and if necessary check on the patient via phone periodically.

he.

1) Post in Main Discussion Board

week 4

- a. What do you think your team did well in your initial planning draft for the patient interaction?
- b. As a group we did not have a lot of different careers, but after we got talking we make a well developed plan for our client. It would have been nice to have a practitioner in our group. The patient questions where detailed and I feel cover all aspects of the plan of care for this individual.
- a. What could your team have done differently in your initial planning draft for the patient interaction?
- b. I feel more discussion will be beneficial to developing the plan of care for the patient, this would require additional medical field specialties which we did not have. I never think that team is communication is possible; therefore ,increasing communication with positive. However, over all I feel we did the best with what we had in regard to our resources available to us.

2) View debriefing video & Post main takeaway



Video Takeaway

Overall, the video shows that the students were confident and knowledgeable about Syphilis and what needs to happen, but not very confident on reading the room, if that makes any sense. They all came in ready to explain the test results and let the patient know that they wanted to support her, but not that they should check if the guest wanted to leave or if she understood why there were 5 people in the room, rather than one doctor. It's understandable to assume to that a person coming for STD test results would let whoever they bring know to wait in the waiting room, but we just have to learn that people won't always do the most obvious thing.

As a child I had asthma, whenever I went for a checkup or to get new medication the nurses would ask me to show them how I used my inhaler. I always though that was odd, since they're pretty user friendly, even for an 8 year old. One person let me know that they always check because one day someone came in complaining about their medication not working, and it turned out that person thought they were supposed to dump out the contents and add them to their food instead of inhaling it.

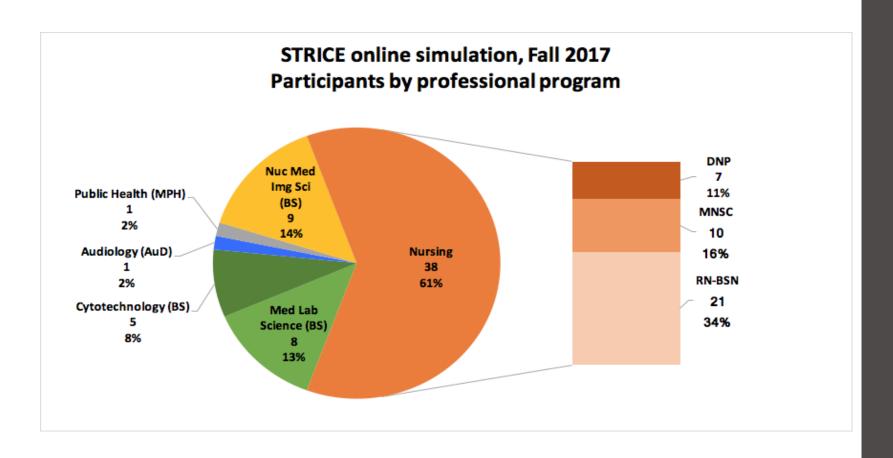
1) Post-Activity Survey

20. Negotiate responsibilities within overlapping scopes of practice

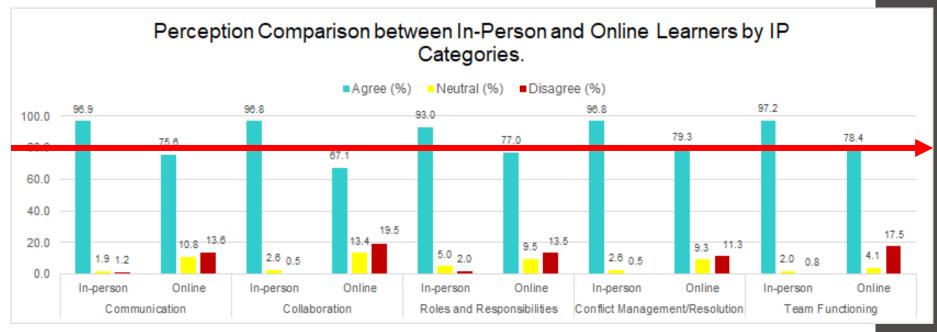
ICCAS - Interprofessional Collaborative Competencies Attainment Survey

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For your unique anonymous participant code, please provide your mother's first name initial, the day and month of here birthday: Please indicate your profession: year of program or practitioner																			
Please answer the following questions by filling in the circle that most accurately reflects your opinion about the following interprofessional collaboration statements: 1= strongly disagree; 2= moderately disagree; 3=slightly disagree; 4= neutral; 5=slightly agree; 6=moderately agree; 7= strongly agree; na= not applicable																			
Please rate your ability for each of the following statements:																			
	Before participating in the learning activities I was able to:								After participating in the learning activities I am able to:										
Communication	1	2	3	4	5	6	7	na		1	2	3	4	5	6	7	na		
1. Promote effective communication among members of an interprofessional (IP) team	0	0	0	0	0	0	0	0	ı	0	0	0	0	0	0	0	•		
Actively listen to IP team members' ideas and concerns	0	0	0	0	0	0	0	0	ı	0	0	0	0	0	0	0	0		
Express my ideas and concerns without being judgmental	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
Provide constructive feedback to IP team members	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
5. Express my ideas and concerns in a clear, concise manner	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
Collaboration																			
Seek out IP team members to address issues	0	0	0	0	0	0	0	0	Ì	0	0	0	0	0	0	0	0		
7. Work effectively with IP team members to enhance care	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
Learn with, from and about IP team members to enhance care	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
Roles and Responsibilities																			
Identify and describe my abilities and contributions to the IP team	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
 Be accountable for my contributions to the IP team 	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0		
11. Understand the abilities and contributions of IP team members	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
12. Recognize how others' skills and knowledge complement and overlap with my own	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
Collaborative Patient/Family-Centred Approach									[
13. Use an IP team approach with the patient** to assess the health situation	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
14. Use an IP team approach with the patient to provide whole person care	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
15. Include the patient/family in decision-making	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	•		
Conflict Management/Resolution																			
16. Actively listen to the perspectives of IP team members	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	0		
17. Take into account the ideas of IP team members	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	0		
Address team conflict in a respectful manner	0	0	0	0	0	0	0	0	[0	0	0	0	0	0	0	0		
Team Functioning									- [

Who participated in the STRICE Sim Online?

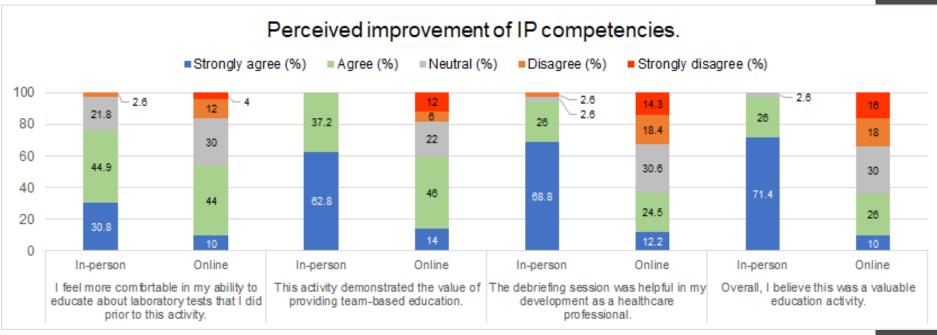


Outcomes of STRICE Sim Online vs In-person



- In-person learners mostly agreed that the activity had helped them improve their IP competencies.
- Online learners did not perceive similar degree of agreement with their improvement in IP domains.

Outcomes of STRICE Sim Online vs In-person



Most in-person learners thought the simulation was of value to their education and helpful in their development as a healthcare professional. Not the case with online learners.

Groups were similar about their perceived ability to educate about laboratory tests.

Ideas for Improvement

- Ensure simulation is applicable to all disciplines involved.
- Ensure even distribution of discipline representation.
- Identify the goal for patient simulated interaction.
 - Each team member needs to identify his/her role and responsibility.
 - Provide a template for the desired patient interaction plan to be developed.
- Provide clear and concise directions.
 - Easy access and presentation of instructions in the learning management system.
 - Give explicit expectations for discussion boards.

Faculty Feedback

- Concern on when faculty facilitators intercept.
 - Discussion Boards
- Easier methodology to track student activity and participation.
- Concerns of grading.
 - Creation of online simulation specific rubric.
- Implement adaptive release.
 - Allow participants to only see activities on a weekly basis.

Moving Forward

- Online STRICE simulation will continue to be offered
 - Next Offering: Spring 2019
 - # of online students that will benefit
 - 20 Medical Laboratory Sciences
 - 8 Cytotechnology
- Possibility of incorporating STRICE simulation into telemedicine.
- Collaborations
 - Programs that do not have IP sim component in their institution

"Interprofessional education... is an opportunity to not only change the way that we think about educating future health workers, but is an opportunity to step back and reconsider the traditional means of healthcare delivery. I think that what we're talking about is not just a change in educational practices, but a change in the culture of medicine and health-care."

-Student Leader

Framework for Action on Interprofessional Education & Collaborative Practice. WHO 2010.

Questions?

Contact us:

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