ARIZONA® SIMULATION TECHNOLOGY AND EDUCATION CENTER

PILOT STUDY: EVALUATION OF INTERPROFESSIONAL EDUCATION THROUGH TELESIMULATION USING REMOTE AND LIVE FACILITATION

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BACKGROUND

Interprofessional education, often implemented through simulation education, has become a primary strategy to improve clinical communication and health outcomes. Telesimulation may provide a new modality to expand interprofessional education to more learners by addressing the key barriers of cost and facilitator deficit within traditional simulation education.[1, 2]

This pilot study was designed to evaluate the effectiveness of remote facilitation in comparison to live facilitation for interprofessional telesimulation events and to develop a model for interactive, interprofessional training at two remote sites.[3, 4]

Students at the ASTEC site observing the CPR scenario being completed at the NAHEC site.

METHODS

This study was conducted at two sites:

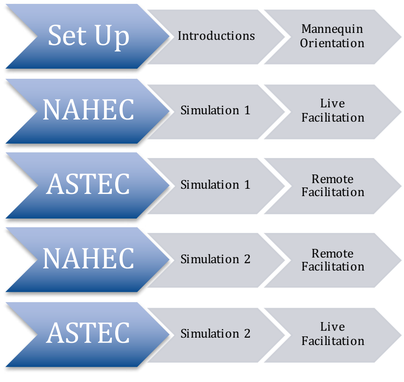
- Arizona Simulation Technology and Education Center (ASTEC)
- Northern Arizona Area Health Education Center (NAHEC)

Participants:

5 first year medical students – ASTEC
2 second year osteopathic students – NAHEC
3 fourth year pharmacy students – NAHEC

The two locations were equipped with a high-fidelity patient simulator, all necessary medical supplies, and live telemedicine visual/audio connectivity. The learners completed four cardiopulmonary resuscitations (CPR) scenarios, two scenarios per site, that were each followed by a debrief. At each site, students were provided with one debrief led by the on-site facilitator and one debrief led by the remote facilitator. Students completed a survey at the end of the training, evaluated on a 5-point Likert scale.

Training schedule for students at NAHEC and ASTEC simulation sites.



RESULTS

The survey was completed by all learners (n=10) and returned within a week of the simulation training.

Survey Question:	Average Score ± Standard Deviation:
I could see who was speaking at the remote site.	4.5 ± 0.7071
I could follow along as the simulation scenario unfolded with relative ease.	4.5 ± 0.7071
I could easily identify what each learner was doing throughout the scenario.	4.3 ± 0.8233
I could hear the discussion between participants clearly.	3.9 ± 0.5676
I could hear the facilitator clearly.	5.0 ± 0.0000
As a remote learner, the objectives for this session were adequately addressed.	4.9 ± 0.3162
The facilitator was able to provide a valuable simulation training experience using distance learning technologies.	4.9 ± 0.3162
The remote facilitation was just as effective as the live facilitation.	4.2 ± 0.6325
I would recommend using tele-simulation (distance learning using simulation technology) for locations with low resource and low facilitator availability.	4.7 ± 0.6749

Learner post-simulation surveys scored on a 5-point Likert scale (1 – Strongly Disagree; 5 – Strongly Agree).

Students at the ASTEC site completing the CPR scenario.

Students at the ASTEC and NAHEC sites engaging in a scenario debrief.

CONCLUSION

- The pilot study suggests that telesimulation, with remote and live facilitation, is an effective strategy to provide interprofessional simulation education.
- Improvements can be made to standardize the set-up of audio/visual technology for telesimulation education.
- Additional orientation can be done to encourage more verbal interaction between sites in future studies.

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