Simulation in a Graduate Online Learning Environment

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Simulation In a Graduate Online Learning Environment

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Disclosures

We have no conflicts to disclose.
Learning Objectives

• Review simulation theory and simulation as a teaching methodology
• Describe three formats for conducting simulations at a distance
• Summarize faculty and student responses to online simulation activities
• Identify one aspect of your course that would be enhanced with simulation
Simulation Theory

Active learning
– Student centered/student focused

Application of knowledge
– Safe environment

Teaching methodology
– Is this the right choice for my objectives?
– Build to simulation experience

(Bhalli, Sattar, & Assif, 2016; Salas, Paige, Rosen, 2013)
Exemplar: Phone Triage Simulations

Needs assessment
- No practice with phone triage
- Limited documentation practice

Simulation
- 3 scenarios
- One emailed to student week before phone simulation
Exemplar: Phone Triage Simulations

Standardized Patient (SP)
- Calls with breastfeeding question/issue

Learner
- Conducts phone triage
- Practice as provider
- Documents encounter

Faculty
- Grades documentation
- Only listen to recording if issue
Benefits & Challenges: Phone Triage Simulations

Benefits:
• Standardized patient
  – “Real-life” actress plays the patient, gives non-clinical feedback
  – Minimizes faculty involvement/time
  – Phone scenario is common in practice

Challenges:
• Missed appointments
  – Schedule extra slots for SP for make up calls
Exemplar: Recorded Video of a Gynecological Office Visit

Needs Assessment
- Preclinical course, so students need to practice
- Faculty dissatisfied with discussion forum assignments
- Limited practice with documentation

Simulation
- Groups of 2-4 students
- Faculty developed 10 simulations (70-80 students/term)
- Told patient’s chief complaint prior to simulation
- Students play role of clinician in rotation
- Simulation occurs after module content
Exemplar: Recorded Video of a Gynecological Office Visit

Faculty acts as the patient
- Followed by debrief period still online, but not recorded

Learner(s)
- Practice data collection, differential diagnosis, explaining plan of care to patient
- Review video of Office Visit
- Reflect on interview process -- individually
- Practice documentation -- write chart note as a group

Faculty
- Conduct simulation and debriefing, review recording
- Grade reflection
- Grade group chart note
Benefits & Challenges: Recorded Videos

Benefits
- Group mind
- “Seeing how others do it”

Challenges
- Problems connecting and staying connected
- Time
- Faculty intensive
- Multiple students playing clinician - confusing
- Faculty as both patient and preceptor/faculty
Exemplar: Two-part Patient and Provider Office Visit

Needs assessment
- Pre-clinical antepartum management course
- Practical application of actual typical client encounter

Simulation
- Two assignments: One as provider, other as patient
- Two different clinical scenarios (“Cases”)
- Provided with pertinent information only to their role
- Prepare for and conduct 5-minute visit in that role
- Record visit during week that content is covered in class using YouTube Live and submit link to recording as well as form describing preparation and reflection of experience.
Exemplar: Two-part Patient and Provider Office Visit

Students alternate playing patient role
- Brief unrecorded debriefing period after visit
- Evaluation form for partner to complete

Learner
- Prepares for and completes visit according to role
- Completes review of assignment
- Completes review of partner (google form)

Faculty
- Watches video, makes detailed comments about performance
- Grades written paper
- Collates scores in multiple areas for final grade
Benefits & Challenges: Two-part Patient/Provider Scenarios

Benefits

- Opportunity to experience both roles

Challenges

- “Spoon feeding”... what is realistic expectation of performance?
- Poor performance or lack of preparation on part of one student
- Conflicting evaluation comments to faculty vs. peer evaluation numbers
- When both “miss the boat”....
Quantitative Outcome Data

How beneficial was this assignment to your overall learning of related course content (patient/provider case scenario)?

– Patient: 4.66
– Provider: 4.81

Breastfeeding Online Simulation was valuable to my learning (phone with simulated patient)

– Mean: 4.42
Quantitative Outcome Data

The group simulation assignment:

– Work through diagnostic situation in real time (4.67, 0.56)
– The live debriefing process at the end of the Office Visit Simulation Assignment was valuable to my learning (4.67, 0.61)
– Translate into woman-centered language (4.65, 0.67)
– Retrieve knowledge from memory and access resources in real-time (4.60, 0.58)
– Gain insights into the pace, activities, and limitations of a real first visit (4.60, 0.60)
– The post-simulation reflection process was valuable to my learning (4.52, 0.77)
Qualitative Outcome Data

confidence  variety

safety

helpful

unexpected

application

real-life

preparation

communication

short-comings
Discussion
How Might YOU Implement a Simulation Activity in YOUR Course?

• Backwards design!
• Evaluate any unmet objectives/competencies
• Consider current course activities- could one be replaced?
• What type of simulation activity would work best?
Resources: Technology - Phone

Phone conference line

– Record
– SP send faculty record number-issues/QA
– Student able to listen to recording
Resources: Technology- YouTube

Recorded video conference (Hangouts on Air from YouTube)

- Google accounts needed to set up
- Email link to students at the time of sim
- After sim, email students with link to recording
- Students and faculty able to view recording
- Can set to be private to specific individuals
Resources: Technology- YouTube

Recorded video conference (YouTube Live)

– IT Instructions: Authenticate account and Specifics
– Set up on own time; available 24/7
– Private link students share with faculty
Evaluation Mechanisms

Rubrics
  – Students want clarity and specific examples

Will you listen/watch all scenarios?
  – Time consuming

Level of faculty involvement
  – Time consuming, scheduling issues

Peer grading
  – Even the playing field?
Thank you!