Collaborative Classroom Simulations: Longitudinal Simulation Pedagogy for the Tertiary Care Classroom

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DISCLOSURES

- Conflict of Interest
  - Carrie Hoover (Researcher) reports no conflict of interest
  - Bethany Tollefson (Researcher) reports no conflict of interest
  - Julia Greenawalt (INACSL Conference Administrator & Nurse Planner) reports no conflict of interest
  - Leann Horsley (INACSL Lead Nurse Planner) reports no conflict of interest
- Successful Completion
  - Attend 100% of session
  - Complete online evaluation

Learning Outcomes

Upon completion of this educational activity, participants will be able to:

1. Define classroom collaborative simulations (CCS) as an alternative pedagogy to classroom or clinical teaching.
2. Discuss the advantages and disadvantages of the CCS pedagogy.
3. Discuss effective use of longitudinal CCS integrating complex mental and physical health concerns to prepare students to care for patients in tertiary care environments.

Background - Curriculum

- Concept-based via levels of prevention
- Connection between concept course and clinical course
- Integrated exemplars
  - End of life
  - Tertiary Care
  - Mental and physical health exemplars

Background

- What is CCS exactly? Video Example
- CCS developed by faculty in 2014 to overcome barriers of traditional simulation.
  - limited resources including cost, laboratory space, faculty time, and student time.
- Berndt et al., (2015) reported "positive opportunities for junior level students to enhance learning, collaboration, and critical reasoning while providing individual quality simulation without increasing faculty workload."
- CCS expanded in 2016 to include tertiary care environments and longitudinal care experiences.

Purpose

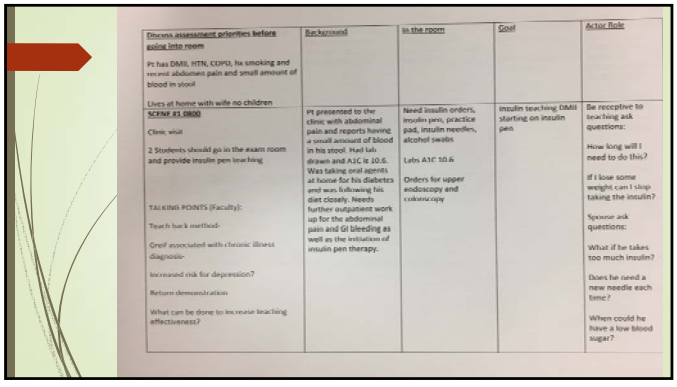
- The purpose of this descriptive study was to explore the effectiveness of a longitudinal CCS, designed for the tertiary course, based on student perceptions of their participation in the experience.

Methods

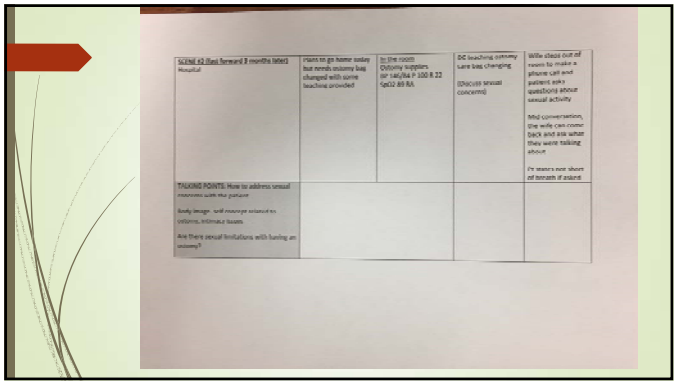
- 8-9 students participated in two simulations during the month of April. Each group spent 90 minutes in the simulation experience.
- Individually or by pair, students entered the simulation room to provide patient care in a variety of settings while the remainder of the students observed in the classroom
- The classroom was set up discussion style with the large monitor displaying the simulation room activities with sound.
- The students in the classroom could communicate with the students in the simulation scenario. Communication of ideas was encouraged.

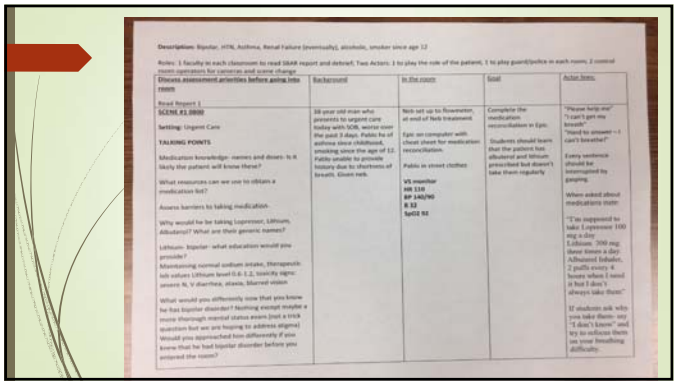
Methods

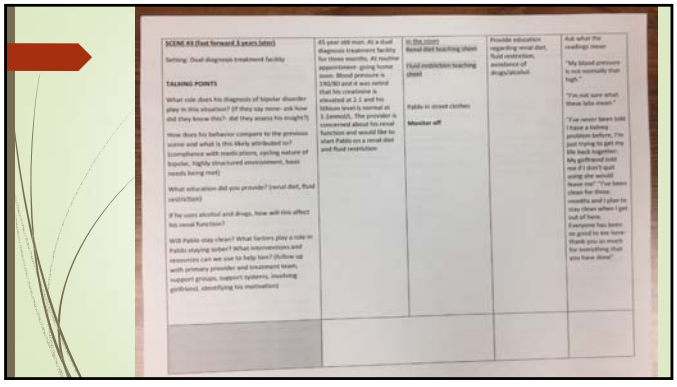
- Students rotated through six scenes of the unfolding case to allow each student an experience as the active participant
- Faculty led debriefing occurred as a large group in between each scene, or sometimes to prep for a scene.
- Students were administered a perceptions survey following each CCS. Completing the survey was voluntary.
- Two faculty lead discussions/simulations simultaneously.
- A cohort of 51 nursing students completed the simulation experience in 5 hours.



Discuss assessment priorities **before** going into room	Background	In the room	Goal	Actor Role
Pt has DMII, HTN, COPD, hx smoking and recent abdomen pain and small amount of blood in stool Lives at home with wife no children **SCENE #1 0800** Clinic visit 2 Students should go in the exam room and provide insulin pen teaching TALKING POINTS (Faculty): Teach back method Grief associated with chronic illness diagnosis Increased risk for depression? Return demonstration What can be done to increase teaching effectiveness?	Pt presented to the clinic with abdominal pain and reports having a small amount of blood in his stool. Had lab drawn and A1C is 10.6. Was taking oral agents at home for his diabetes and was following his diet closely. Needs further outpatient work up for the abdominal pain and GI bleeding as well as the initiation of insulin pen therapy.	Need insulin orders, insulin pen, practice pad, insulin needles, alcohol swabs Labs A1C 10.6 Orders for upper endoscopy and colonoscopy	Insulin teaching DMII starting on insulin pen	Be receptive to teaching ask questions: How long will I need to do this? If I lose some weight can I stop taking the insulin? Spouse ask questions: What if he takes too much insulin? Does he need a new needle each time? When could he have a low blood sugar?







Video Example

- Video Example

Results

	N	Min	Max	Mean	SD
Enhanced my understanding of tertiary care	99	3	5	4.43	.538
Integration of mental/physical	99	3	5	4.67	.495
Integration of multiple exemplar topics	99	3	5	4.54	.628
Enhanced my understanding of chronic disease over time	99	3	5	4.37	.599
Assess priority needs	99	3	5	4.33	.685
Demonstrate interventions	99	3	5	4.47	.541

Results

	N	Min	Max	Mean	SD
Increased confidence to integrate mental/physical	99	3	5	4.44	.610
Equal or superior to classroom theory	99	2	5	4.25	.761
Equal of superior to clinical	99	1	5	4.08	.888
Positive experience	99	3	5	4.54	.611
Should be used	99	3	5	4.60	.605

Results: Comparison of the 2 Collaborative Sims

- The simulation experience provided opportunities to demonstrate the integration of
  - Mental and physical health concerns (*M* 4.60 versus 4.73, *p* = .225)
  - Multiple exemplar topics (*M* 4.69 versus 4.39, *p* = 0.18*)

Results: Comparison of the NEW CCS

- Compared second CCS first group to all other groups, as this was a newly developed CCS
- All means were rated lower for the first group of the new CCS
- Students in the first group of the new CCS rated …enhanced my understanding of tertiary care and …increased confidence to integrate mental/physical significantly lower
  - Mean 4.22 versus 4.48, *p* = *.036*
  - Mean 4.06 versus 4.53, *p* = .002

Results: Student Perceptions

- Integration
  - It made me feel more comfortable in my experience in integrating both mental and physical health
  - The sim provided me with an example of the importance of Holistic care and helped to improve my understanding/confidence with difficult conversations
  - Being able to use many different interactions and integration of many topics and skills
  - Bringing topics together, improvement on communication in difficult situations

Results: Student Perceptions Scenario 1

- Tertiary Care
  - It was helpful to see different skills come back that we haven't done in a while, and it was cool to see lots of tertiary concerns all within one patient
  - Understanding how chronic health problems progress over time
  - We really utilized therapeutic communication and implemented discharge teaching in a tertiary care facility
  - Different skills and situations, long – term (months-years)

Results: Student Perceptions Scenario 1

- Discharge Teaching/Communication
  - Helped to improve my understanding/confidence with difficult conversations
  - It was helpful to practice skills that we don't practice all the time or do in clinical. We also got to practice discharge teaching which we don't get to do. The family member was a good touch to task management and addressing concerns
  - It opened my mind to possible potential questions patients may ask and I will now think more in depth about them and my responses
  - It was helpful to see how discharges are done. Also good to talk about priorities between nursing care and education
  - Improves our communication skills and it was one of the only times we have practiced discharge

Results: Student Recommendations for Scenario 1

- More background before we go into the sim and getting info about the patient
- This sim was focused on tertiary prevention and talking with pts and their family. But maybe adding a few more skills would help to improve it
- Time:
  - After the sim, maybe be able to see the sim plan w/ some of the key points especially relating to communication, how to address certain issues
  - I feel the sim was great. Just more time in each sim would've been helpful
  - Maybe talk more in class about how practically to do some tasks in home settings rather than hospital settings
  - I know the time crunch was a part of it, but more time would allow for better/more teaching.

Results: Student Perceptions Scenario 2

- Communication/Integration
  - It was very beneficial to work with a patient that was a little more "difficult" because it allowed me to practice my communication and how to interact…
  - Collaboration, ability to integrate concepts and apply them
  - It helps us prepare for situations that we might encounter in our practice and it helps tie all of the classroom material together.

Results: Student Perceptions Scenario 2

- Mental Health/Comfort Zone
  - Got to practice skills related to mental health. Tested our critical thinking and pushed us out of our comfort zone.
  - Integrated care medical and psychosocial health both of which were intertwined within this experience
  - Provides the opportunity to critically think in a situation that is unpredictable
  - New experiences with law enforcement (incarcerated client), critical thinking

Results: Student Recommendations for Scenario 2

- Knowledge of medications prior to the scenario
- Actors we do not know
- More technical skills

Discussion

- How do you see this working for you?
- As a classroom pedagogy
  - Flipped classroom
- Replacement for clinical
  - Missed experience
- Faculty Time
  - 2 faculty for 54 students/5 hours
- Additional Resources
  - Teaching assistant/Lab assistants and actors or
  - High fidelity/Low fidelity sim equipment

Limitations

- Two different scenarios, one of which we had used previously
- Time selected for SIM (right before Easter break and a Friday morning. We started at 0700.)
- Faculty/Actors not consistent.

References

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