

Significance

During the course of a baccalaureate education, nursing students often encounter unintentional or unexpected patient experiences including death. The use of simulation can prepare students to provide care for patients with deteriorating, life-threatening conditions.

However, incorporating inter-professional educational simulation opportunities can be challenging for a nursing program in an isolated rural community lacking other health profession programs.

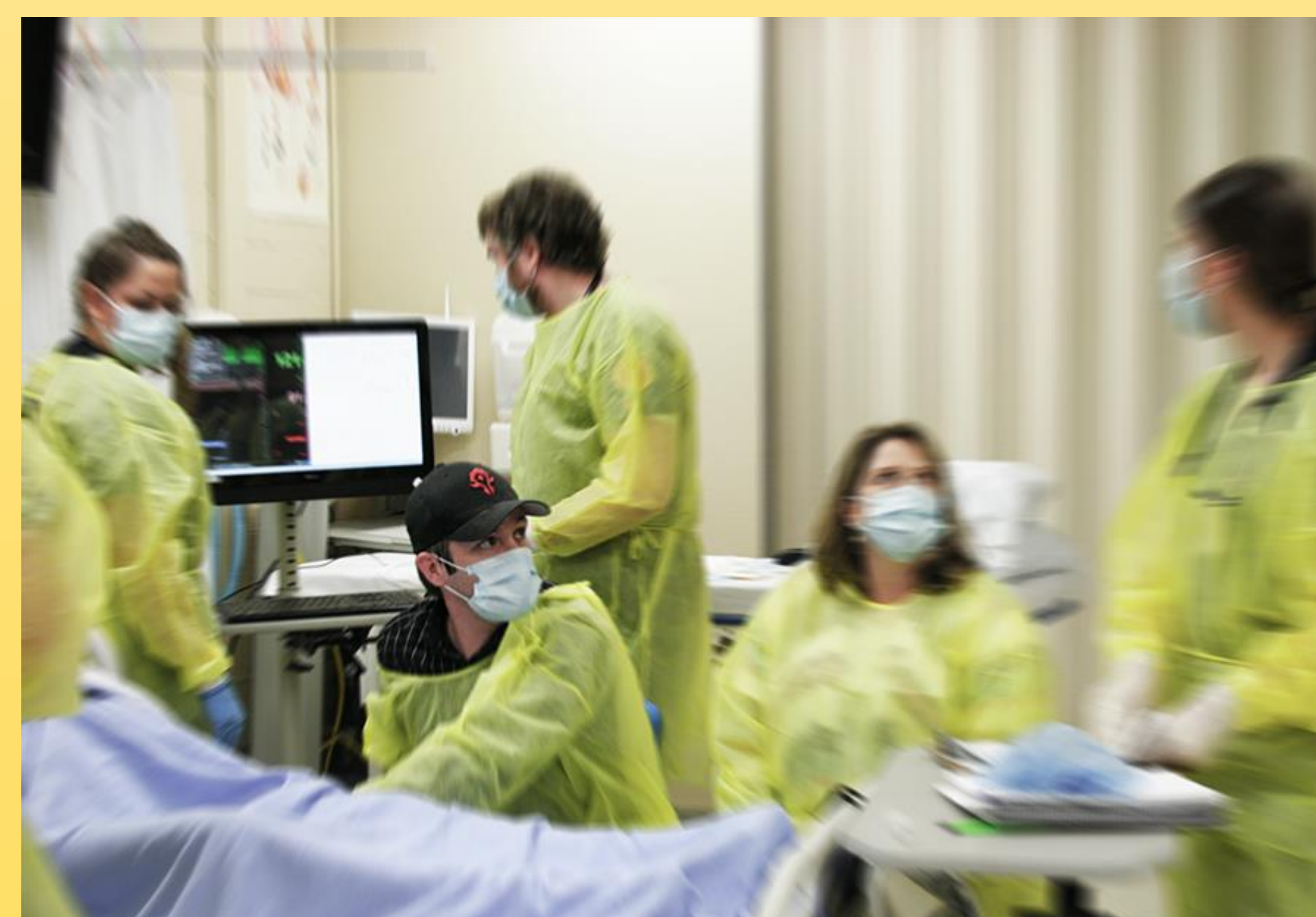
In addition to the challenge of inter-professional simulation, access to high acuity clients in face to face settings is also limited in a rural community setting.

A scenario was developed and implemented with senior students that focused on the critical care component of a cardiac and respiratory arrest event of a 32 week gestation female with H1N1 influenza accompanied by her significant other. Additional objectives included, team communication, family centered care, ethics, maternal demise, care of a preterm infant and inter-professional collaboration in a capstone lifespan simulation.

Methods

Students were divided into small groups. Additional participants in the simulation include a facility partner CRNA acting as the provider and rapid response team leader, a Maternal NP, the campus minister, and a volunteer actor as family member (unknown to students). The students completed a care map on H1N1 influenza, pharmacology and ACLS protocol prior to presenting to simulation, which was reviewed in pre-briefing. A report was given which describes a 32 week gravida 1 para 0 female who presented to the ED with flu-like symptoms, elevated blood pressure, proteinuria, productive cough and infiltrates on chest radiography. One group was assigned to care for the maternal client, with one student as team leader. As the scenario progressed, the patient deteriorated, required intubation and an emergent caesarian section before going into cardiac arrest. A second team of students with the maternal NP for the infant resuscitation. During this time (the father with the chaplain remained at the bedside, emotionally asking questions) the maternal patient expired. After the first team completes the maternal scenario the second team continues the infant resuscitation and stabilization. Once stabilized, the father is brought to the infant bedside to be with infant.

Simulation Photos



Results

Student satisfaction and perception of learning was measured with a guided reflection tool. Positive student feedback was received from 94.44% of participating students. Comments included:

- Highly recommend
- I feel like we communicated really well
- We got to do so much
- This helped me get into my role
- Very enjoyable experience
- I loved the father and chaplain
- I felt this helped prepared me

Constructive feedback included opportunities to become more familiar with equipment and emergency medication ampules prior to simulation

Students requested that additional simulations be added to the curriculum that challenged them to use critical thinking skills.

Conclusion

Student feedback in the 2018 cohort simulation was 94.44% positive, while student feedback in the 2019 cohort was 100% positive.

Feedback from students included the need for further education of the administration of critical care medications commonly found in code carts, specifically the use of ampules or autojets. That improvement was made for the second iteration of the simulation.

Another suggestion for improvement included the need for education on delivering “bad news” and being “present”. A palliative care course was added as an elective.

Recommendations

The capstone simulation program will be continued in future courses. This simulation scenario was incorporated into the final semester for the 2019 graduating cohort and again received an overwhelmingly positive response. Additionally, there is a plan to increase the amount of simulation in our final clinical course from 10% to 25% of clinical hours. Another benefit of MegaCode simulation, is that it has prompted the addition of ACLS and PALS certification being made available to all senior nursing students. In the spring of 2019, 100% of the graduating seniors were certified.