Pandemic-Related Disruptions in Nursing Education: Zooming Out for an Innovative Interprofessional Simulation

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Abstract

When the COVID-19 global pandemic began, many higher education systems had to restructure their educational delivery system and transition to online learning. This posed a challenge for students in health professions education programs as it impacted their ability to participate in hands-on learning regarding patient care. As a result, the University of Cincinnati College of Nursing developed and implemented simulation-based learning experiences to allow graduate-level social worker, counselor, and psychiatric-mental health nurse practitioner students the opportunity to learn as an interdisciplinary team in a virtual format. The Opioid Use Disorder Simulation addressed the complexities of chronic comorbidities and navigate a fragmented health care system.

Pandemic-Related Disruptions in Nursing Education

In February 2020—the beginning of the COVID-19 pandemic in the United States—the University of Cincinnati College of Nursing was continuously readjusting its approach to clinical and didactic instruction. We were in the nonlinear, sequential “crisis preparedness” and “crisis prevention” phases as outlined by Jaques. Planning included frequent in-depth reviews of the Centers for Disease Control and Prevention website for updates on COVID-19 management. By the first week of March 2020, we were dually hovering in the crisis prevention and crisis management phases. Traditional methods of clinical and lab education presented complications secondary to the pandemic, resulting in the need for transition to remote learning. We worked to identify resources and strategies and initialize their implementation, with the proximal goal of mitigating disruptions in the delivery of didactic and experiential learning opportunities and managing stakeholders’ (students’) responses. While the challenges were many, they can be broadly delineated in 3 categories: (1) student experience, (2) academia and practice partnerships, and (3) transfer of knowledge.

Evidence supports that learning depends on several factors, including cognitive resources, interpersonal processes, psychological adjustment, effort, and positive relationships. All of these factors were compromised during the transition to remote learning. Targeted solutions that supported the student experience centered around increasing communication, identifying resources, supporting technology use, promoting student engagement, and addressing students’ mental health.

Health professions academe requires the management of the internal environment, as well as external networks and relationships with clinical and community partners. Internally, health professions academe implemented COVID-19 protocols and safeguards, including the identification of remote teaching strategies and necessary faculty supports, regular communications, and training for online platforms. Externally, we worked in tandem with our partners to manage clinical placements, communicate changes in protocol, and support the community response to the pandemic. Transfer of knowledge considerations supported the fluid exchange of ideas and experiences to students and determining how to “capture” this transfer. While technology has long been a variable in health professions education, remote learning established technology as a crucial variable affecting the transfer of knowledge.

If there was ever a year to produce a case study outlining the Issue and Crisis Management Relational Model, it was the academic year of 2020–2021, when the global COVID-19 pandemic presented many challenges to the delivery of health professions education. However, challenges provide opportunities to innovate and consider how current technologies can be leveraged in new ways. This manuscript: (1) provides an overview of the disruptions in academia experienced by a large, urban, midwestern college of nursing; (2) discusses solutions that addressed the disruptions; and (3) highlights a virtual, synchronous interprofessional simulation case study that supported the development of health professions students’ interprofessional communication, therapeutic communication, and management of complex patient care. We hope that sharing this case study will provide a framework for future expanded simulation experiences that will result in a more prepared, proactive, and interprofessional health care workforce equipped with the skills to holistically
Reconceptualizing Simulation in Nursing Education

Fortunately, as an Apple Distinguished School, we had the technology infrastructure in place to support the abrupt switch to remote, synchronous simulation, repudiating the perception that creating authentic simulation-based learning experiences (SBLE) could only be accomplished onsite and forcing an evolution of thought that resulted in remote simulation that seamlessly replicates provider interactions.

Our team recruited first-year graduate students for social work, counseling, and psychiatric-mental health nurse practitioner (PMHNP) in-person simulations, so students could apply their knowledge of evidence-based practices. When 2 of our 3 professional schools went remote and use of standardized patient actors was prohibited, we pivoted and developed an unfolding interprofessional simulation for remote delivery.

The Opioid Use Disorder Simulation Case Study was developed as part of the curriculum for the Serving At-risk Youth Fellowship Experience Training (SAFE-T), funded by the U.S. Department of Health and Human Services’ Health Resources and Services Administration (HRSA Grant number T98HP33422). The SAFE-T program aims to recruit, teach, and train social work, mental health counseling, and PMHNP students to participate in a year-long fellowship consisting of experiential and didactic learning experiences promoting culturally competent integrated health care teams providing opioid use disorder (OUD) and substance use disorder (SUD) prevention, treatment, and recovery services. As part of the fellowship, students participate in an integrated care course with learning outcomes that include:

1. Apply holistic, evidence-based practices to initiate, stabilize, and support client in medication-assisted treatment and reintegration into the community.
2. Establish level of care for a complex client with diagnosed OUD.
3. Communicate effectively amongst interprofessional clients and their support system in a way that minimizes stigma and supports the client.
4. Apply evidence-based best prevention, screening, and treatment options for transitional-aged, pregnant women with co-morbid medical conditions.

SBLE Development

To develop the simulation, a team of faculty with one representative from each discipline determined key content from the integrative learning course objectives, developed the standardized patient script, and compiled assessment tools that were discussed in the course. Interprofessional stakeholders experienced in addiction medicine reviewed the script for accuracy, authenticity, and congruence to actual patient care experiences. The simulation highlights the complex case of “Gabby,” a pregnant, 19-year-old female, who reports to the emergency department for worsening pain in her right ankle and recurrent intravenous opioid use. The persona of Gabby was developed because of the relevance that she has to the Cincinnati area, which has a high prevalence of opioid use and, according to recent study, there was an initial spike of opiate overdoses within the state of Ohio after the pandemic was declared a national public health emergency in March 2020.2

The case unfolds across 2 scenes. Scene 1, Emergency Department: The integrative care team triages “Gabby” for pain and implements screening, brief intervention, referral to treatment (SBIRT), and motivational interviewing. The team also provides a warm handoff to an intake nurse at an addiction medicine treatment facility. Scene 2, Addiction Medicine: The integrative care team conducts a biopsychosocial assessment and develops a long-term care plan, with thoughtful consideration of culturally congruent care.

To troubleshoot restrictions regarding standardized patients, the team recruited a first-year nursing student to assume the role of Gabby. One month before the simulation, the student portraying Gabby was provided the simulation story line and a detailed script. After thorough review of the script and background clinical information, the team met with the student playing Gabby 3 times before the simulation. During these meetings, several technical difficulties were noted. For example, the student playing Gabby couldn’t hear all of the questions and it was difficult for the students interviewing Gabby to see her and provide an assessment via computer screen.

To address these challenges, we equipped a rolling cart with mounted iPad and computer, both logged into Microsoft Teams, so we could project the patient care scene for students. We created a control station near the simulation room that included a computer logged into Microsoft Teams and an iPhone. We outfitted the student playing Gabby with Apple ear buds so that we could coach her in her portrayal of the patient’s affect and responses. The adjustments allowed for greater control of the scenario and allowed the team to ensure that key learning objectives were being demonstrated.

SBLE Implementation

One week before the remote simulation, students in the course were provided with an overview of the case, including Gabby’s past medical and surgical history, and possible screening and assessment tools that may be used. Students were then divided into 2 integrative care teams. On the day of simulation, both teams met online in the same Microsoft Teams room. PMHNP students were asked to lead the integrative care team through the assessment process and discuss rationale for all nursing actions. As the simulation progressed, the integrative care team determined next steps. If students missed an opportunity, faculty provided guided questions to support team communication, troubleshooting, and critical thinking.

As a team, students worked together providing SBIRT (including motivational interviewing). In partnership with “Gabby,” the standardized patient, the integrative care team established her willingness for OUD treatment. The integrative care team was instructed to draft a “warm handoff” with all pertinent information for referral to the addiction services. One team member “called in” a report to a nurse at addiction services.

Scene 2 begins with Gabby’s follow-up at her addiction consultation, where she presents with the following chief
complaint: Patient interested in treatment options for SUD and care considerations of pregnancy and limited transportation. The integrative care team conducted a biopsychosocial assessment that included: treatment history, mental health and mental health treatment history, suicide screening (Columbia Suicide Severity Rating Scale), abuse/trauma history, family social and childhood history, living situation, sexual health history, gender identification, education and employment history, spirituality, legal history, strengths, weaknesses, goals, and a mental status exam. At this point, the integrative care team was prompted to leave the virtual addiction treatment center and convene in breakout rooms to determine diagnoses, identify treatment recommendations, and develop a long-term plan of care.

At the end of 30 minutes, students returned to the virtual clinical setting and presented their recommendations. After the presentations, an interprofessional debriefing was facilitated.

The Promoting Excellence and Reflective Learning in Simulation (PEARLS) model served as a framework for debriefing reactions, analysis, and summary.

Lessons Learned

Synchronous prebriefing is paramount

The prebriefing folder, which was provided to students in writing, included an overview of the case study and screening tools that may be needed during the simulation. Students were asked to review all documents and familiarize themselves with Microsoft Teams. In retrospect, given the varying levels of familiarity with simulation-based learning across student disciplines and lack of a standardized remote platform across campus, more time should have been spent setting the learners’ frame of reference and orienting students to the technology. Requiring students to practice using breakout rooms would have supported transitions between scenes and during student presentations. These were missed opportunities by faculty that resulted in the 2 integrative care teams joining as 1 for Scene 2. Our team recommends a synchronous prebriefing that includes establishing psychological safety, ground rules and expectations, fiction contract, orientation of the virtual learner to the environment, equipment, learner roles, and discussion of evaluation method.4–6

There is power in silence

It is difficult transitioning from the educator/lecturer role to that of active observer during simulation. However, the moments of silence that occurred allowed students to contextualize their professional role in the integrative care team. During the debrief, students described feeling like they “didn’t know what was coming next” and they “weren’t sure what to say to the patient,” and were unsure of “when to jump in.” While the faculty team and simulation director were actively present to redirect or add context, allowing the integrative care team to communicate with each other and determine next steps supported deeper learning and critical thinking, and provided the students with a better understanding of the importance of the integrative care team.

A learner-centered recommendation is to encourage students to work together on a plan of action following the prebriefing and before the simulation. Although faculty were prepared to prompt students, such guidance was only offered after students were given ample opportunity to explore solutions as a team. By establishing this norm in the prebriefing and encouraging a preparatory interprofessional plan of action, the team may be better oriented to experiences with high levels of uncertainty and respond by knowing each other’s roles, valuing one another within the team, communicating effectively, and engaging in competent interprofessional practice.

Plan for multiple outcomes

To replicate an authentic patient care experience, it is important to plan for multiple outcomes. Initially, the unfolding case study had one outcome and one suggested plan of care. It was later modified to include multiple outcomes because innate variability of “live patients” supports authenticity. By using earbuds to suggest Gabby’s emotional responses to the student playing her, faculty had some control over the scenario, but students conducting the mental status exam could have different interpretations of Gabby’s emotional state and interactions. Such a dynamic case also affected how students were evaluated.

Instead of grading on individual assessment scores, students were evaluated as a team using an Interprofessional Simulation Case Study Grading Rubric developed by the SAFE-T project faculty. Rubric criteria included: professional nomenclature; identification of priority concerns/needs, barriers, and strengths; identification of priority questions for consultation; and ethical and cultural competencies. These criteria were the framework to provide real-time discussion and processing during the simulation debrief and provided an opportunity for the integrative care team to engage in a professional discussion with faculty to expand on skills and considerations related to complexities of the case. Discussion around establishing rapport through motivational interviewing and cognitive-based interventions were outlined to provide students with a plan for strengthening the patient–provider relationship. Planning for multiple outcomes requires deliberate reflection of experience and theory by the facilitator/faculty but supports authenticity and enhances the simulation experience by allowing students to expand on care considerations both inter- and intraprofessionally.

Technology: Mediator, moderator, and buffer

There is a well-established imperative to change the way we are educating the health professions workforce to address the needs of our population. Our team noted that during the simulation, students refrained from asking “Gabby” about sociocultural beliefs, and many of the wrap-around services that would have supported her situation were not addressed. Technology may have buffered their initial response, but it also allowed our team to specifically address Gabby’s care considerations in the debrief session, prompting students to explore wrap-around services, such as transportation, prenatal care, and case management. The simulation debrief provided a safe and controlled environment for the faculty, Gabby, and students to discuss the relationship between implicit bias, access to care, health inequities, and health outcomes. A recommendation to support authenticity and allow students to explore bias is to include the simulated patient in the debrief discussion to help equalize the provider–patient relationship. In addition to equal status, we sought to promote
other optimal conditions to reduce stigma and biases consistent with Allport’s contact theory: establishing common goals (student learning), collaborating across ethnically diverse group members, and providing authoritative support (see Pettigrew et al for a full review of contact theory).

Conclusion
Although COVID-19 created numerous disruptions to health professions education, our focused efforts at University of Cincinnati College of Nursing to support: (1) student experience, (2) academia and practice partnerships, and (3) transfer of knowledge resulted in a successful interprofessional simulation. The importance of purposeful simulation design and interprofessional collaboration from content experts committed to authenticity are instrumental in simulations development. Our recent findings posit that synchronous prebriefing, silent-active observation by faculty, dynamic and variable multiple outcomes for simulation case studies, and recognition of the strengths and weaknesses of technology are instrumental in supporting authentic experiences that allow knowledge transfer to the clinical context. Promoting culturally informed integrative care teams through interprofessional simulation supports and promotes the health of our communities.

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