Journal of Midwifery & Women's Health www.jmwh.org
Innovations from the Field
Continuing Education

Rapid Curricular Innovations During COVID-19 Clinical Suspension: Maintaining Student Engagement with Simulation Experiences

Heather M. Bradford[1], CNM, MSN, Cindy L. Farley[1], CNM, PhD, Melicia Escobar[1], CNM, WHNP-BC, MSN, Ella T. Heitzler[1], PhD, WHNP-BC, FNP, Tanya Tringali[1], CNM, MS, Kelly C. Walker[1], CNM, DNP

Health care education programs were faced with the need to quickly adapt to a new reality during the coronavirus disease 2019 pandemic. Students were temporarily suspended from campus and clinical sites, requiring prompt changes in structure to their didactic and clinical learning. This article describes the rapid adjustments that one midwifery and women's health nurse practitioner education program created using both synchronous and asynchronous simulation experiences to promote student learning and ongoing engagement. Flexibility and reflexivity were needed by faculty and students alike in the face of the multiple changes wrought by the pandemic. Curricular changes were made simultaneously in many courses. Objective structured clinical examinations simulate telehealth experiences that assess knowledge, clinical reasoning, and professional behaviors via a scripted scenario and an actor patient. On-call simulations mimic telephone triage and provide students the opportunity to build listening, assessment, and management skills for prenatal and intrapartum scenarios. Students are provided equipment and virtual instruction in an intrauterine device insertion session, which promotes skill acquisition and self-confidence. Trigger films are used to visualize real-life or scripted clinical encounters, leading to discussion and decision-making, particularly in the affective domain. Bilateral learning tools, similar to case studies, provide students an opportunity to demonstrate their knowledge and critical thinking with a mechanism for faculty feedback. Web-based virtual clinical encounter learning tools using patient avatars prompt additional student learning. Suturing skills introduced in live remote group sessions are augmented with video-guided individual practice. This article describes each of these adapted and innovative simulation methods and shares lessons learned during their development and implementation.
J Midwifery Womens Health 2021;66:366–371

Keywords: advanced practice nursing, curriculum, graduate education, midwifery, patient simulation

INTRODUCTION

In the Spring of 2020, the coronavirus disease 2019 (COVID-19) pandemic abruptly affected academic institutions and education programs in the United States and across the globe.[1,2] In-person classroom instruction quickly pivoted to online synchronous and asynchronous platforms with the closure of university campuses. Clinical experiences for health professional students were suspended from most facilities, including midwifery and women's health nurse practitioner (WHNP) education programs. Rapid curricular innovations were required to sustain student engagement in studies until on-site clinical learning could resume. Even programs with preexisting distance learning or hybrid models had to rethink their curricula. A delay of a year's worth of newly graduated midwives, estimated to be 1214 students based on new student enrollments in the year 2018, was at stake.[3] Many of these students were projected to graduate in 2020. Data for numbers of expected WHNP graduates were unknown.

The removal of midwifery and women's health students from the clinical setting created anxiety for students, faculty, and preceptors. Students were concerned that the absence of in-person clinical experiences would prevent progression in their programs. Additionally, concerns were raised regarding timely integration of academic content with clinical experiences if clinical suspensions were long term. In the face of the global pandemic, policies of academic institutions and health care facilities were developed and implemented quickly and sometimes reversed just as quickly, creating stress and uncertainty in planning. Changes in family obligations and employment added to the burden for some students and faculty, sometimes necessitating obligatory home schooling of children and/or altered financial circumstances. Many students were required to increase hours in their nursing role, often caring for patients with COVID-19. These abrupt disruptions and stressors took time and energy away from their studies. Flexibility and reflexivity became essential to helping midwifery and WNHP students prevail through changes wrought by the pandemic.

Simulated clinical experiences are an evidence-based method for enhancing acquisition of clinical skills, clear communication styles, and critical decision-making.[4] Simulation learning can assist students in meeting core competencies and transitioning to their professional role while growing clinical

[1]Department of Advanced Nursing Practice, Georgetown University School of Nursing and Health Studies, Washington, District of Columbia

Correspondence
Heather Bradford
Email: heather.bradford@georgetown.edu

ORCID
Heather M. Bradford https://orcid.org/0000-0002-3664-4161
Cindy L. Farley https://orcid.org/0000-0002-7606-2609
Melicia Escobar https://orcid.org/0000-0001-7714-6399
Tanya Tringali https://orcid.org/0000-0002-0392-1564
Kelly C. Walker https://orcid.org/0000-0002-8176-3477

 1526-9523/09/$36.00 doi:10.1111/jmwh.13246

Quick Points

- Values-based curricular adaptations and innovations in a time of crisis ensure students' ongoing and equitable learning opportunities.
- Flexibility and reflexivity in times of uncertainty can lead to the creation of innovative learning opportunities.
- Role play and low-fidelity simulation in a virtual learning environment can provide acquisition of clinical judgement and person-centered communication skills while building confidence.

confidence.[5] Multiple simulation methods can be used to achieve these outcomes. Standardized patients, telehealth encounters, objective structured clinical examinations (OSCEs), and online skills demonstration can promote the achievement of competencies.[6] Simulations can be created that are flexible and content specific for midwifery and WHNP students. This article describes the simulation opportunities developed by faculty in one university's nurse-midwifery and WHNP education programs as they rapidly adjusted their curriculum to meet the challenges imposed by the pandemic.

VALUES-BASED ADAPTATIONS AND INNOVATIONS

Curricular decisions must be congruent with program values and professional ethics, and therefore, Georgetown University's mission and values guided the changes made by faculty.[7] For example, *cura personalis*, meaning care for the whole person, centered the needs of the student, recognizing that each was uniquely affected by current events. In this spirit, the leadership team increased the number of individual student meetings and streamlined group communication through having more virtual town halls. Students reported concerns with new circumstances and challenges created by the pandemic and racial unrest. Anxiety about personal and professional wellness, continuity in coursework, and clinical progression were common themes for most students.

To navigate conditions of uncertainty, both faculty and students needed to practice flexibility and reflexivity. Whereas flexibility refers to the ability to be responsive and timely in a changing environment, reflexivity is a practice that involves real-time, proactive reflection on current processes and requirements, evaluation, reimaging of possibilities in alignment with the mission to meet the new demands, and implementation.[8] Flexibility at the university and program levels was evidenced through revised time frames and guidelines for a grade of incomplete, weekly virtual community wellness activities, virtual clinical education sessions, and virtual clinical simulation. These innovations enabled the program to provide educational and clinical continuity while meeting students' needs and program, university, and accreditation requirements.

SIMULATION USE IN MIDWIFERY AND WHNP EDUCATION

In response to the abrupt cessation of clinical placement, assignments were quickly shifted to development and use of synchronous and asynchronous simulations for formative learning. Some simulations were adapted from existing learning activities, whereas others were newly created innovations (Table 1). Many of these learning opportunities are optional, and use varies based on student agency; however, a majority of students accessed one or more of these simulations. Students document their hours in Typhon, a web-based platform used to track clinical and simulation experiences. National Certification Corporation supports credit of up to 100 hours of simulation toward the required 600 clinical hours for students to be eligible for certification as a WHNP.[9]

Objective Structured Clinical Examinations

The OSCE was originally developed to serve as a more real-world evaluation tool to objectively assess student knowledge, clinical reasoning, and professional behavior as compared with a traditional clinical examination.[10] Students interact in telehealth simulation with a patient and are evaluated on clinical tasks such as the ability to obtain and interpret data, teach, communicate, develop a diagnosis and management plan, and handle unpredictable patient behavior.[11] It is used in health education, including nursing and midwifery, in formative and summative evaluation formats.[10,12] Existing OSCEs for midwifery and women's health specialty courses were adapted to the virtual environment and serve as a required student learning experience prior to the end of the graduate nursing program. Additional optional OSCEs were developed for all students who had entered the clinical sequence. Live videoconferencing technology is used with faculty or trained actors as standardized patients. This provides simulated telehealth experiences to assess students' clinical knowledge and reasoning and promotes continuation of clinical engagement.

Prior to the experience, each standardized patient is given a chief concern, history of present illness, personal history, family history, and other relevant teaching points for their scenario. Each student is given the chief concern and patient vital signs a few minutes before the scenario begins. The student then enters the role play scenario and collects a history and a review of pertinent systems, determines an assessment, and develops a plan of care. As this is a formative experience, students can step out of the virtual room to consult their faculty preceptor using the Summarize, Narrow, Analyze, Probe, Plan, Selecting (SNAPPS) model in order to complete the visit. The SNAPPS model is a 6-step learner-led technique in which the student presents a concise summary of the clinical case to their preceptor, demonstrating their clinical thinking and reasoning. The 6 steps include *summarizing* briefly the history and findings, *narrowing* the differential to 2 or 3 relevant possibilities, *analyzing* the differential by comparing and contrasting the possibilities, *probing* the preceptor by asking questions, *planning* management for the patient, and *selecting*

Table 1. Simulation Opportunities Developed by Program Faculty during the Pandemic

Type of Simulation	Description
Adapted simulation opportunities (synchronous or asynchronous)[a]	
Objective structured clinical examinations (synchronous)	A scripted scenario was drawn from real-life encounters to objectively assess student knowledge, clinical reasoning, and professional behavior.[10] Students interact in telehealth simulation with a patient and are evaluated on clinical skills such as the ability to obtain and interpret data, teach, communicate, develop a diagnosis and management plan, and handle unpredictable patient behavior.[11]
IUD training (synchronous)	Pelvic models, IUDs, and insertion equipment were sent to students for use during a live session featuring a lecture with demonstration, as well as a return student demonstration.
Trigger films (synchronous or asynchronous)	A short video clip was used to stimulate learning and discussion around approaches to a variety of clinical encounters and professional behavior in challenging situations.
Bilateral learning tools (asynchronous)	A case study was situated in the program's web-based learning management system with an opportunity for faculty feedback to the individual student.
Suturing skills simulations (synchronous)	Live instruction and demonstration of basic suturing skills was given by faculty with return demonstration by students over a video conferencing platform. It is best followed by individual asynchronous practice guided by video or written instructions. Students obtained their own suturing supplies from one of several sources recommended by faculty.
Innovative simulation opportunities (synchronous or asynchronous)[a]	
On-call simulations (synchronous)	Live interaction with actor patients in brief structured scenarios was conducted over the phone. Designed to feature telephone triage skills frequently encountered as an on-call midwife or provider.
Virtual clinical encounter learning platform (asynchronous)	Patients as animated avatars were used with detailed history, physical, and laboratory data that learners were challenged to obtain through simulated history, physical assessment, and laboratory orders. Students then developed a differential diagnosis list and treatment plan. Computerized prompts and feedback were built in to guide this learning experience. Platform was available through proprietary services because of the complexity of constructing these simulations.

Abbreviation: IUD, intrauterine device.
[a]Synchronous learning involves real-time faculty-student interaction. Asynchronous involves independent, self-paced, student learning.

a case-related issue for self-directed learning.[13] After the scenario, the faculty debriefs with the standardized patient and then the student, allowing for student self-reflection and ongoing learning. The full virtual OSCE is an hour of simulation and includes a 10-minute orientation to the simulation, a 30-minute visit, a 10-minute debrief, and a 10-minute period for clinical documentation.

On-Call Simulations

Rapid transition to telehealth modalities sparked by the COVID-19 pandemic led to the creation and implementation of optional on-call simulations within the intrapartum course that also address the typical phone triage skills essential to midwifery care. Four scenarios were developed wherein management could include recommending an in-person evaluation or education and support while remaining at home. Scripts were developed for a pregnant individual reporting one of the following conditions: regular uterine contractions at term, leaking of amniotic fluid, decreased fetal movement, or vaginal bleeding at 19 weeks' gestation. Students sign up for a 4-hour on-call period and provide their phone numbers. Students are prepared with guidance on phone professionalism and etiquette (eg, "Hello, I am the midwife on call today. How can I help you?") and reminded to use their data gathering skills. Each on-call simulation includes a 10-minute role play, a 10-minute debrief, and 10 minutes for documentation.

Faculty members play the role of the standardized patient for the on-call simulations. Their scripts included relevant health history, information about the general demeanor of the patient calling with the concern, and how the standardized patient might act out the role. For example, in the possible labor scenario, standardized patients could present as excited and chatty or could stop to breathe as they answer questions, thereby influencing the student's questioning and decision-making. Standardized patients are told to make their initial report but then not offer further information unless the student specifically asks. A rubric is included in the standardized patient materials listing essential safety questions that should be asked in each scenario. The standardized patient checks off

each question as information is elicited and adds comments as indicated. The scenario ends with the student developing a plan with the patient or at 10 minutes. A debrief takes place. The debrief is student-led to encourage self-evaluation and reflection. Faculty then add their observations and suggestions, including alternative management strategies. Key elements built into this formative simulation are listening skills and shared decision-making.

Intrauterine Device Training Simulation

Prior to the COVID-19 pandemic, students learned how to insert varying types of intrauterine devices (IUDs) during their on-campus experience with the use of a speculum, life-size pelvic model simulator, and complete IUD kit. When adapted to the virtual environment, students were limited to learning with only the IUD and a hand-held uterus model as the IUD training supplies, without the pelvic model. An optional additional 90-minute small-group live video conference simulation was developed through a partnership with an IUD company. A life-size pelvic model simulator, speculum, and complete IUD kit are mailed to each student. The learning session promotes IUD insertion skill acquisition using a return demonstration, as well as student readiness and confidence. Students are given several days to continue to practice after the training before returning the pelvic model to promote further confidence and muscle memory.

Trigger Films

Trigger films are short films or video clips that can be a standalone simulation activity or embedded into a multimodal simulation experience. These films are designed to trigger a student's reaction to critical situations that may be encountered in the clinical setting.[14] Films are a visual and auditory experience and are familiar to the generations of learners who are fluent with social media technology. Cultural and psychological features, physiology and pathophysiology, clinical care, and medico-legal concerns are often depicted. Trigger films can be viewed synchronously as a group through video conferencing technology or individually as an asynchronous assignment. They are useful for generating discussion about complex issues and can provide students with mental scripts for assessment and action. Student responses can be requested through discussion or in writing. Trigger films used as a formal simulation experience require learning objectives and evaluation criteria. Faculty keys are provided to articulate the learning features highlighted in the trigger film simulation.

Films can powerfully portray not only skills and decision-making but the emotional reactions of both the patient and the midwife. They can stimulate learning in the affective domain.[15] One example of a video clip used in teaching midwives and others about vaginal breech birth is a scene in the television program "Call The Midwife" that showed new midwife Chummy conducting an unexpected vaginal breech birth in a home setting alone in the East End of London in the 1950s. Chummy called out her diagnosis to the laboring patient and then talked out loud through each step of the breech birth to guide her actions and inform her patient but, just as importantly, to calm herself so that she could perform safely and decisively without panic. Although unexpected vaginal breech births are much less common in modern times, they still occur. A recent alumna who viewed this trigger film credited simulated learning of vaginal breech birth with her ability to breathe, focus, and perform the guidance and maneuvers to safely accomplish an unexpected vaginal breech birth encountered in her first year of practice.

Prior to COVID-19, faculty had developed scripts and produced a number of trigger films with a technical partner specifically for the intrapartum course. One trigger film featured an Asian-American woman who presented with prelabor contractions, a husband deployed abroad in the military, and a mother driving in from an hour away. The woman was reluctant to go home alone during early labor. Another trigger film featured a Black woman coping well in active labor with a support person who was undermining her stated desire to have an unmedicated childbirth. Trigger films are most useful when featuring common encounters with patients. The examples described are drawn from real-life cases with some elements altered for emphasis on learning objectives. The actor midwife dealt with each situation up to a point and then the film ended prior to resolution to allow discussion of a variety of management options and alternatives to what was shown. Students can freely react to the midwife and the care provided in the trigger film in a way that is less intimidating than questioning a preceptor or a faculty. Questions can be raised for consideration of several approaches, such as "How do you work with a patient who is unhappy with your recommendations?" in the case of the woman with prelabor contractions being sent home, or "How do you deal with support people who are not supportive?" in the case of the support person undermining the laboring woman coping well with her labor.

Transitioning to a new role can be addressed through the use of trigger film simulations.[16] The transition from nurse to midwife or nurse to nurse practitioner is a dynamic process that begins in basic education. Changes in knowledge and skills are accompanied by changes in identities, relationships, and behaviors. Although such a transition is an internal process to the student, it can be facilitated by open discussion of the responsibilities of the new role, comparing similarities and differences with previous roles.[17] Students are encouraged to consider interactions from the perspective of the provider role they will be assuming, as well as others featured in the film clip. Faculty can raise questions for consideration and exploration as students evolve their professional identities. Questions can be posed illustrating inherent conflict between professional standards. An evidence-informed clinical decision may be in opposition to patient preference, as in the trigger film featuring a woman with prelabor contractions. Pausing the trigger film at moments that highlight clinical decision points allow faculty to reference ethical principles that guide professional behavior and encourage discussion and debate.

Bilateral Learning Tools

A bilateral learning tool is an asynchronous adaptation of a guided case study learning format situated in a web-based learning management system with a mechanism for faculty feedback. Information about a patient and condition is

given in increments and presented in a slideshow format. The student reads and advances the slides until a question is posed. Some questions are knowledge questions related to the condition being featured, whereas other questions are decision points requiring critical thinking with several options for care. The student responds to the question in a text box and is unable to edit their response, which fosters commitment to decision-making with supportive rationale. Faculty respond with feedback; this written exchange is only accessible by the faculty-student pair. Although presented as an individual assignment, this could also be conducted in pairs or groups. Individual or group discussions could be held to delve into the nuances of the featured case, the clinical situation, the decisions made, and their possible consequences.

An example of a guided case scenario in the intrapartum course involves R.J., a 23-year-old nulliparous woman with a mild form of cerebral palsy since birth, manifesting as a left-sided weakness, limited range of motion in her left arm and leg, and walking with a pronounced limp. She had an elevated body mass index, but her other health parameters were normal. She desired prenatal care by midwives and an unmedicated birth in a freestanding birth center. One of the questions for students to respond to is "Do you accept R.J. into your practice? Your partner holds the opposite view. Present both views, accept or refer elsewhere, and the benefits/risks to R.J. and to the practice." This type of question is intended to help the student gain a deeper understanding of an issue by asking them to consider several perspectives.

Virtual Clinical Encounter Learning Platform

Funding was procured for students to have access to a proprietary web-based virtual clinical encounter learning tool, an optional asynchronous activity.[18] The software platform simulated a patient encounter with animated avatars. Skill development focused on patient assessment and diagnostic reasoning skills. Specific cases were chosen based on the students' current coursework (e.g., primary care, normal antepartum, and complex gynecology care). Students spent approximately one hour per case collecting a history, performing a virtual examination, determining a differential diagnosis list, and making a plan of care, with varying levels of difficulty set by the faculty based on desired course outcomes. Available cases focused primarily on the ambulatory setting and were situated in primary care and women's health conditions. There were no intrapartum scenarios.

Suturing Skills Simulation

Learning to suture can be an intimidating skill set for many students who do not have prior suturing experience; the need to acquire these skills remotely during the pandemic has heightened student concerns. However, students recognize the importance of mastering suturing skills.[19] The structured remote learning of each of the steps of the suturing process, from knot tying to subcuticular suturing, can successfully introduce these skills and enhance student confidence.[2,20]

A list of recommended equipment, simulation materials, and sutures is sent to students to purchase on their own. A live large-group demonstration via videoconference occurs before small-group suturing practice with faculty and 4 to 6 students. This sequence of large-group instruction followed by small-group instruction is repeated several times over a 5-hour period. Students are instructed in suturing skills including maintenance of a sterile field, loading the needle holder, use of pickups, tying one-handed and instrument ties, creating an anchor and end knot, stitching a continuous line of locked and unlocked suture, and placing an interrupted suture and a figure of 8 suture. Students text photos of their lines of suture to their faculty demonstrating their progress. Weekly practice is encouraged to attain and maintain proficiency in suturing.

LESSONS LEARNED

Although development and implementation of all simulations were time-intensive endeavors, student and faculty feedback has been overwhelmingly positive. Students report the IUD training and practice on a pelvic model assist with skill acquisition and maintenance, confidence, and readiness for their return to the clinical setting, which is consistent with simulation education in other health care disciplines.[21] Students specifically convey acquisition of knowledge through the OSCE and on-call simulation experiences, and many students ask to complete additional sessions for further professional role development in other courses regardless of clinical placement. For example, students could conduct OSCEs prior to entering the clinical setting for the first time to increase their readiness and confidence regarding common reproductive health and primary care conditions. Students could also engage in on-call simulations to review laboratory results with patients, a professional skill that typically occurs over the phone.

Trained actors as standardized patients are used for virtual OSCEs during the final clinical course, but faculty serve as actors for OSCEs in other courses and for the on-call simulations. This is a potential shortfall to this adaptation, as trained standardized patients receive rigorous training to portray a consistent, highly realistic scenario. They also are educated in how to provide extensive feedback on communication and interpersonal skills. This may serve as an area for faculty development in the future. Although bilateral learning tools require clinical decision-making with supporting rationale, this format does not easily lend itself to shared decision-making with the patient. With respect to teaching suturing skills virtually, some suture kits purchased by the students contain instruments that are lighter weight and smaller than those used in practice. This is suboptimal, as handling instruments is an important part of learning to suture. Camera angles and lighting are challenging for students and faculty who are learning and teaching from home.

A benefit to learning suturing remotely is that students must procure their own suturing supplies, which allows them to practice on their own. Suturing is a skill set that is best maintained with regular practice and can be guided by videos and written instructions for later review. Despite clinical placements increasing in availability to students in 2021, the need to provide adaptive and innovative simulation experiences continues. Campuses remain closed or with strictly limited in-person sessions, and ongoing uncertainties about the pandemic persist. It is predicted that returning to

pre-COVID-19 functioning may not be a smooth curve but rather will include periodic returns to strict limitations of in-person interactions.

Additionally, pandemics and climate catastrophes are projected to increase in frequency, leading to occasional prolonged disruptions in normal operations. Experiences in rapid curricular adaptations are a useful skill set for faculty to develop. These simulation opportunities serve as valuable adjuncts to traditional learning and provide a leveling of experiences to students who have variable accessibility and capability to engage in the clinical setting. Moving forward, as students return to clinical sites and campuses reopen, some virtual OSCEs, such as those simulating a prenatal/postnatal visit or the annual examination, may be implemented prior to entry to the clinical setting in order to promote skill acquisition, use of person-centered language, and student confidence.

CONCLUSION

With an abrupt cessation of clinical experiences and access to campus for in-person learning, faculty in midwifery and WHNP education programs were challenged to adapt their pedagogy to both synchronous and asynchronous simulation. Simulated clinical experiences are an evidence-based approach for developing and enhancing acquisition of clinical and communication skills, decision-making, self-confidence, and readiness to begin or return to the clinical setting. Grounded in university mission and professional values, using flexibility and reflexivity based on student input, simulation experiences were developed and implemented in order to promote student engagement. Positive student feedback supports continued and expanded simulation opportunities across all clinical courses regardless of access to clinical experiences.

CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

ACKNOWLEDGMENTS

The authors would like to acknowledge all students whose studies were disrupted by the COVID-19 pandemic, who nevertheless persisted under changing and uncertain circumstances to reach their goal of becoming excellent practitioners. We also thank Christina Marea, who contributed to this article's conception.

REFERENCES

1. Olson HL, Towner D, Hiraoka M, Savala M, Zalud I. Academic clinical learning environment in obstetrics and gynecology during the COVID-19 pandemic: responses and lessons learned. *J Perinat Med*. 2020;48(9):1013-1016.
2. Hoopes S, Pham T, Lindo FM, Antosh DD. Home surgical skill training resources for obstetrics and gynecology trainees during a pandemic. *Obstet Gynecol*. 2020;136(1):56-64.
3. American College of Nurse-Midwives. *Midwifery Education Trends Report 2019*. American College of Nurse-Midwives; 2019. Accessed November 10, 2020. https://www.midwife.org/acnm/files/cclibraryfiles/filename/000000007637/Midwifery_Education_Trends_Report_2019_Final.pdf
4. Kubin L, Fogg N, Elaine Wilson C, Wilson J. Fostering Prioritization Using a Blended Group and Individual Simulation Approach. *Nurse Educator*. 2020;45 (1):7–8. https://doi.org/10.1097/nne.0000000000000654.
5. Accreditation Commission for Midwifery Education. *Criteria for Programmatic Accreditation of Midwifery Education Programs*. Accreditation Commission for Midwifery Education; 2020. Accesesed November 10, 2020. https://www.midwife.org/acnm/files/cclibraryfiles/filename/000000007968/ACME%20Criteria%20for%20Programmatic%20Accreditation%20Final%20Copyright%20May%202019%20(Revised%20August%20%202020).pdf
6. Fogg N, Wilson C, Trinka M, Campbell R, Thomson A, Merritt L, Tietze M, Prior M. Transitioning from direct care to virtual clinical experiences during the COVID-19 pandemic. *Journal of Professional Nursing*. 2020;36 (6):685–691. https://doi.org/10.1016/j.profnurs.2020.09.012.
7. Mission, vision, and values. Georgetown University School of Nursing and Health Studies. Accessed January 22, 2021. https://nhs.georgetown.edu/about/mission-vision-values/#
8. Farnese ML, Fida R, Livi S. Reflexivity and flexibility: Complementary routes to innovation?. *Journal of Management & Organization*. 2016;22 (3):404–419. https://doi.org/10.1017/jmo.2015.42.
9. National Certification Corporation. *Statement Regarding Nurse Practitioner Students and Direct Care Clinical Hours*. National Certification Corporation; 2020. Accessed November 1, 2020. https://www.nccwebsite.org/content/documents/cms/2020323_final_statement_np_students_and_clinical_hours.pdf
10. Harden RM, Stevenson M, Downie WW, Wilson GM. Assessment of clinical competence using objective structured examination. *BMJ*. 1975;1 (5955):447–451. https://doi.org/10.1136/bmj.1.5955.447.
11. Zayyan Marliyya. Objective Structured Clinical Examination: The Assessment of Choice. *Oman Medical journal*. 2011;219–222. https://doi.org/10.5001/omj.2011.55.
12. Goh Hongli Sam, Zhang Hui, Lee Chen Na, Wu Xi Vivien, Wang Wenru. Value of Nursing Objective Structured Clinical Examinations. *Nurse Educator*. 2019;44 (5):E1–E6. https://doi.org/10.1097/nne.0000000000000620.
13. Wolpaw TM, Wolpaw DR, Papp KK. SNAPPS: a learner-centered model for outpatient education. *Acad Med*. 2003;78(9):893-898.
14. Rodgers L. *Trigger Films and Simulation: Educating Nurse Anesthesia Students*. Dissertation. University of Michigan; 2017. http://hdl.handle.net/2027.42/143497.
15. Nichols J. The trigger film in nurse education. *Nurse Education Today*. 1994;14 (4):326–330. https://doi.org/10.1016/0260-6917(94)90145-7.
16. Ruyak SL, Migliaccio L, Levi A, Patel S. Role development in midwifery education: A place for simulation. *Midwifery*. 2018;59 141–143. https://doi.org/10.1016/j.midw.2018.01.021.
17. Hunter L. Student to nurse-midwife role transition process smoothing the way. *Journal of Nurse-Midwifery*. 1996;41 (4):328–333. https://doi.org/10.1016/0091-2182(96)00034-1.
18. Virtual simulation for graduate nursing programs. Kaplan. Accessed January 2, 2021. https://www.i-human.com/virtual-simulation-for-graduate-nursing-programs/
19. Diaz M, Steen M, Brown A. Perineal wound assessment and repair education for midwifery students: a multi-methods study. In: Royal College of Nurse-Midwives, ed. *Evidence Based Midwifery*. ; 2020:17-27.
20. Wohlrab K, Jelovsek JE, Myers D. Incorporating simulation into gynecologic surgical training. *Am J Obstet Gynecol*. 2017;217(5):522-526.
21. Nakazato T, Callahan Z, Kuchta K, Linn JG, Joehl RJ, Ujiki MB. A 1-day simulation-based boot camp for incoming general surgery residents improves confidence and technical skills. *Surgery*. 2019;166 (4):572–579. https://doi.org/10.1016/j.surg.2019.05.051.

Continuing education (CE) is available for this article. To obtain CE online, please visit www.jmwhce.org. A CE form that can be mailed or faxed is available in the print edition of this issue.