The Journal for Nurse Practitioners 20 (2024) 105083

Contents lists available at ScienceDirect

The Journal for Nurse Practitioners

journal homepage: www.npjournal.org

By Faculty for Faculty

Scaffolding Adult-Gerontology Acute Care Nurse Practitioner Program Outcomes Through Simulation

Frank Guido-Sanz, Christopher W. Blackwell, Mindi Anderson, Desiree A. Díaz, Steven Talbert

Keywords:
acute care
ACNP
AGACNP
nurse practitioner education
scaffolding
simulation

A B S T R A C T

Simulation-based education (SBE), incorporating the scaffolding and augmented/virtual reality experiences, is noteworthy for meeting the outcomes of adult-gerontology acute care nurse practitioner (AGACNP) education. Faculty in AGACNP programs must have a strong understanding of the pedagogy associated with the use of simulation in advanced practice nursing education. When designing and implementing simulation experiences for learners, faculty must consider their progression in increasing and building on knowledge and skills through the AGACNP curriculum. This article discusses effective strategies for faculty to use a scaffolding approach when designing and implementing SBEs. Specific SBE experience exemplars are discussed.

Introduction

Nurse practitioner (NP) faculty continue to face challenges and changes in educating new generations of professional clinical practitioners, especially in adult-gerontology acute care nurse practitioner (AGACNP) programs. Simulation-based education (SBE), with scaffolding methodology, is a viable and effective pedagogical resource to mitigate these challenges.

Preparing NPs to care for patients, from young adults to older, is challenging, especially in acute, critical, and advanced technologically dependent conditions.[1] To meet these challenges, the AGACNP curriculum demands learning experiences that prepare learners to develop the skills and competencies required.

In July 2022, the National Organization of Nurse Practitioner Faculties (NONPF) issued the Nurse Practitioner Role Core Competencies appraised at the doctoral level (Doctor of Nursing Practice).[2] These competencies, derived from *The Essentials: Core Competencies for Professional Nursing Education* (*Essentials*) from the American Association of Colleges of Nursing (AACN),[3] intended to establish the minimal required core clinical knowledge, skills, and abilities for NPs to practice autonomously.[2] In addition, NONPF, in collaboration with the AACN, defined entry-level population-focused competencies for AGACNPs that are essential for an educational program to prepare learners for the workforce.[1]

Furthermore, the AGACNP role definition highlights the knowledge and skillsets that are unique to AGACNPs compared to other NPs in primary care settings. Such NPs are family nurse practitioners [FNPs] or adult-gerontology primary care nurse practitioners [AGPCNPs] who are educated and certified to work in primary care settings. Because the educational outcomes for AGACNPs are specific to the adult-gerontology acute care patient population, the graduate education preparation for these learners differs from other NP graduate programs. Thus, it is vital for AGACNP faculty to consider approaches to clinical education that build on learners' knowledge and skills through systematic program progression.

To build on learners' knowledge, faculty should ensure that successive AGACNP clinical courses, rotations, and SBE objectives reflect the increased complexities expected of AGACNP learners' progression. Scaffolded simulation experiences may facilitate AGACNP learners developing evaluation, critical thinking, and clinical decision-making skills.[4] However, consistency in developing and implementing scaffolded simulations to integrate high-fidelity simulation remains challenging.[4] The specific purpose of this article is to discuss effective scaffolding strategies used by faculty of an AGACNP program when designing and implementing simulation experiences for AGACNP learners, give examples of one school's associated scaffolding simulations, and discuss the impact of such simulations.

AGACNP Competencies, Role, and Introduction to Competency-Based Education

Core competencies for NPs have evolved for more than 30 years in response to different entry levels for NP practice, the health care environment, new and expanded knowledge, and congruency with AACN's *Essentials*.[2] These core competencies are basic for all NPs regardless of their population focus and are complementary to the *Essentials*.[2] NONPF's role-specific core competencies mirror the

https://doi.org/10.1016/j.nurpra.2024.105083

Essentials' advanced-level nursing education competencies in all 10 domains and are specific to the NP's scope of practice.[2]

In addition to these core competencies, specific competencies for the AGACNPs exist that define the role based on the population focus. These competencies, the *Adult-Gerontology Acute Care NP Competencies*, are aligned with NONPF's-defined core competencies of 2016, and remain endorsed to date.[1] Because patients with acute, critical, and complex health issues can be present in different care settings, the scope of practice of the AGACNP is based on individual needs rather than being setting specific.[1] This presents a particular challenge in the education of AGACNP learners given the myriad care settings where these encounters can occur and the specific coordination of care necessary to meet the patient needs during care transitions.[1]

Upon graduation, AGACNPs must be prepared to manage these patients in different care settings. AGACNPs must possess the knowledge and skills that encompasses the use of data derived from physiological and technological sources to recognize and address instability and risk for potentially serious events like sepsis, shock, and respiratory failure.[1,5] Although some literature suggests an educational gap between theory and independent NP provision of care,[6] competency-based education (CBE) is one approach that might help fill that gap.[6-8] One of the fundamental aspects of CBE is that competency-building occurs on a continuum of linear progression of proficiency.[6]

Consequently, learners cannot be required to demonstrate competence in knowledge or skill on a particular subject without first mastering the fundamentals associated with that knowledge or skill. For example, an AGACNP learner cannot be expected to perform tracheal intubation of a respiratory failure patient in an intensive care unit (ICU) competently without first learning the fundamental aspects of the critical thinking and psychomotor mechanics associated with that skill in a safe simulated environment.[9] Thus, AGACNP faculty must have a clear understanding of the formative processes necessary to educate a competent AGACNP as they consider scaffolding the curriculum and simulation sequencing and establish the objectives for those experiences.[4]

Simulation, Scaffolding, and AGACNP Curriculum

Literature for AGACNP learners and the use of simulation is scant. Authors have described the use of joint high-fidelity intradisciplinary simulation experiences for AGACNP and pre-licensure learners around such content as decompensating patients[10] and communication.[11] Weil et al[12] outlined an interdisciplinary course for AGACNP learners around transitions of care for elderly patients that included case studies. Similarly, literature for AGACNP learners and the use of scaffolding is limited, despite the evidence showing how scaffolding in simulation can facilitate learning.[13]

Vygotsky's scaffolding theory describes a learning process to support learners in their zone of proximal development.[14] Apportioning information or skills will facilitate learners' assimilation of the new information.[15] Moreover, learning can be enhanced by adding a certain level of desired difficulty in the simulation scenarios to keep the experience stimulating and appealing to learners. Scaffolding, although it may be stress-provoking at times, may help reduce cognitive load and result in an interesting experience for the learners.[15]

Scaffolding concepts integrated within simulation allows for multiple learning levels.[13] Furthermore, Schneidereith and Daniels[4] outlined scaffolded simulations for AGACNP learners in 1 program across multiple semesters with positive preliminary data reported. Additionally, research validates the positive impact of technology and scaffolding learning.[16] Nonetheless, integration of scaffolding into curricula remains challenging and unstandardized.[17]

Previous grasping of core courses content (ie, advanced courses in health assessment and diagnostic reasoning, pathophysiology, and pharmacology), as delineated by *The Consensus Model for APRN Regulation*,[18] is expected before beginning population-foci-specific courses, clinical rotations, and simulation experiences.[2] Consequently, learners are expected to have solid core foundation before simulations specific to AGACNP skills and patient management. It is therefore essential that early AGACNP SBEs build on the objectives learners achieved in those core courses.

Exemplars of Scaffolding at Institution

In the program used as an exemplar for this article, the learners complete simulation experiences in the following AGACNP patient-foci management courses in the following sequential order:

1. Diagnostics and Skills for Care of the Critically Ill Lab course (120-hour lab course with SBEs focusing on performing critical care psychomotor skills and diagnostic reasoning). This lab course is associated with a 3-credit hour didactic course (AGACNP I).
2. AGACNP II (3-credit-hour didactic and 3-credit-hour clinical course, with clinical experiences centered on inpatient hospitalist management that includes 24 hours of intra-and interprofessional SBEs).
3. AGACNP III (3-credit-hour didactic and 3-credit-hour clinical course, with a focus on ICU management and 24 hours of SBEs).
4. AGACNP Practicum (3-credit-hour clinical course directed in any area of practice selected by the learner that includes 16 hours of SBEs).

Best practice and evidenced-based standards guide the development and facilitation of all the simulations.[19] The scaffolding of learning throughout courses and semesters follows the impetus of maintaining the SBEs in coordination with curricular progression similarly to McDermott and colleagues[20] integration of simulation in an acute care pediatric NP program. Integration of these SBEs, as suggested by McDermott et al,[20] provides an opportunity for learners to develop and improve competencies and for faculty to assess these competencies better.

Diagnostics and Skills Course

The objectives for the simulations in this laboratory course focus on learners' mastery of critical thinking and psychomotor function associated with specific skills.[9] The skills require manual dexterity, precision, and clinical judgment (see the accompanying Table for specific skills associated with this lab).

Learners in this laboratory course are synchronously enrolled in a 3-credit-hour didactic course that goes into significant depth of the diagnostic reasoning of the clinical concepts and psychomotor skills taught in the laboratory course. For example, while learners acquire the critical thinking and psychomotor skills associated with a thoracostomy tube placement and management in the laboratory course, learners are taught the clinical management of pleural effusions, pneumothorax, and hemothorax in the didactic course. This ensures learners are not exposed to a set of skills in isolation but instead, are taught the essential clinical management and cognitive elements for conditions associated with the implementation of those skills during patient care. Data suggest using this integrative approach to teaching cognitive and psychomotor skills simultaneously may allow new practitioners to develop skills and competency faster.[21]

Table
Clinical Laboratory 3 Skills

Endotracheal intubation	Thoracotomy tube placement and management
Mechanical ventilation management	Point-of-care ultrasound (POCUS)
Bronchoscopy	Echocardiogram (ECHO)
Central venous catheter insertion and line management	Focused assessment with sonography for trauma (FAST)
Arterial line placement and management	Rapid ultrasound for shock and hypotension (RUSH) assessments
Ultrasound-guided peripherally inserted central catheter (PICC) line	Bedside ultrasound-guided paracentesis
Ultrasound-guided lumbar puncture	Bone marrow aspiration and biopsy
Emergent thoracentesis placement and management	

In this course, the skills are scaffolded over the semester in SBEs, beginning with simple psychomotor skills such as incision and drainage, evacuation of abscesses, skin biopsies, suturing, and advancing to more complex skills such as endotracheal intubation, central venous catheter insertion under ultrasonography, thoracostomy tube insertion and removal, ultrasound-guided paracentesis, and lumbar punctures to name a few. These skills are performed during simulated clinical scenarios that focus on integrating decision-making and diagnostic reasoning with technology and psychomotor skills. For instance, a respiratory failure scenario may involve the decision to intubate a patient (mannequin) endotracheally, select ventilatory modes, actual manipulation of a mechanical ventilator, and interpretations of diagnostic data (eg, labs, radiographies) to justify the interventions.

For all these SBEs, learners participate in teams of 3 or 4 learners per team. Prebrief and debrief sessions are done in teams. Overall team performance is then evaluated using a competency-based assessment (CBA) tailored after the Simulation Module for Assessment of Resident Targeted Event Responses (SMARTER) Approach.[22] The SMARTER Approach methodology is used in graduate medical education to develop simulation scenarios linked to core competencies for medical graduates.[22]

The SMARTER Approach addresses performance measurement in simulations and may be used to document competencies acquired during SBE.[22] This type of structured training and learning experiences provide an opportunity to sample core competency outcomes for a safe environment for learning.[22] Grades and feedback are provided individually following a rubric created for the simulation.[23]

Adult-Gerontology Acute Care Nurse Practitioner II & III

In the first course of this course sequence (Adult-Gerontology Acute Care Nurse Practitioner II), the SBEs are scheduled near the midterm and at the end of the semester. Again, learners are divided into teams of 3 to 4, and each team is given a scenario of a simulated low-acuity, stable patient, presenting to the emergency department (ED) with a diagnosis of community-acquired pneumonia (CAP). However, the patient's clinical presentations are different for each team. The selection of a low-acuity clinical scenario follows the intention of scaffolding knowledge and skills using SBEs.[13]

After prebriefing, an instructor facilitates the simulation. Using a high-fidelity mannequin to replicate physiological data, learners are provided with their requested data (eg, diagnostics, laboratories, interventions) during their unfolding assessment of the patients' presentations, but they must also provide rationales for their selections and justify their selections based on needs and associated costs. Team members assume various roles (eg, NP, nurse, collaborating provider) as the simulation unfolds, and they are responsible for obtaining a comprehensive health history, performing a relevant system-focused physical assessment, ordering and interpreting diagnostic data, and designing an evidence-based plan of care. Clinical and psychomotor skills competencies are assessed by the faculty during the simulation using a rubric known by learners.

The simulation endpoint is designed either for a patient requiring hospital admission or a patient being safely discharged home for self-care. The team managing the patient requiring hospitalization is responsible for designing an appropriate plan of care that includes ED management and medical—surgical admission and care directives. Those in the team managing the patient that would be discharged home for self-care must design an appropriate plan of care that provides outpatient management, among others. In both scenarios, psychomotor skills (eg, endotracheal intubation, management of mechanical ventilator) are incorporated into the SBE to reinforce previously learned skills.

Learners then convene to debrief and discuss their cases, diagnostics, interventions, and plans of care allowing them the opportunity to compare and contrast cases of CAP that meet evidence-based guidelines for hospitalization with those that do not. After debriefing, all learners participate in a documentation exercise requiring them to demonstrate competence in appropriate clinical documentation for both cases. This exercise satisfies several NP role core subcompetencies under the NP Domain 2: Person-Centered Care competencies.[2] As in the previous course, and for all subsequent courses, overall team performance is evaluated using a CBA tailored after the SMARTER Approach.[22]

In the following course, AGACNP III, learners also work together with instructors as facilitators on a simulated case of a patient presenting to the ED experiencing an acute, ST-segment elevation myocardial infarction. This is one of several cardiac arrest simulated scenarios used in the program.[9,24] The acuity of the simulated patient in this scenario is higher than that of the simulated patients presented in the previous course. The simulation presents a patient with shortness of breath and difficulty providing a health history, requiring admission to a progressive care unit (PCU).

In this simulation, a high-fidelity mannequin is also used to replicate physiological data. After prebrief and during simulation, the learners assume various roles (as indicated in the previous example) and are responsible for obtaining a comprehensive health history, performing a relevant system-focused physical examination, ordering and interpreting relevant diagnostic data (which again includes defending their selection based on patient needs and cost), and designing an evidence-based plan of care that includes management of the patient in both the ED and PCU. Learners then convene to debrief and discuss the case including diagnostics, interventions, and plans of care. As in a previous course, learners participate in a documentation exercise requiring them to demonstrate competence in documentation of the patient's hospital admission and plan of care.

Adult-Gerontology Acute Care Nurse Practitioner Practicum

During the program's final clinical course, learners return to group work facilitated by instructors. This SBE is divided into 2 stages. The initial stage is designed to address the scope of practice

of AGACNPs in population-focused across clinical settings and the continuum of care.[1] In this stage, the scenario focuses on an older adult (geriatric) patient who presents to the ED from a skilled nursing facility (SNF) with altered level of consciousness. The scenario depicts an elderly patient who is hemodynamically unstable and with a compromised airway. At this point, the learners assume various roles, assigned at prebrief, and are responsible for obtaining a comprehensive health history from the SNF nursing staff and the emergency medical personnel in the ED, performing a relevant system-focused physical examination, and ordering and interpreting relevant diagnostic data (which again includes justifying their selection based on patient needs and cost).

The scenario progresses with a complication. Just before the diagnostic information is obtained, the patient experiences a cardiorespiratory arrest with ventricular fibrillation cardiac dysrhythmia. Learners then must address the life-threatening scenario. Using a high-fidelity mannequin, they are assigned roles requiring them to perform skills like endotracheal intubation and mechanical ventilation management, insertion of an arterial monitoring line and a central venous catheter, and stabilization of the patient using advanced cardiac life support interventions (including performing defibrillation and ordering of correct antidysrhythmic agents). Once the simulated patient is stabilized, learners are responsible for safely transferring the patient to the ICU with appropriate transition of care.[9]

In the second phase of the SBE, learners continue with their assigned roles and are responsible for obtaining a comprehensive health history from a family member played by one of the instructors (ideally this could be played by an embedded participant), performing a relevant system-focused physical examination, and ordering and interpreting relevant diagnostic data in a similar structure as in the previous courses discussed before. As the learners obtain diagnostic information, they discover the patient is septic from a severe urinary tract infection, and they must design an evidence-based plan of care in the ICU. Next, they must discuss the patient care scenario with the patient's family member, which also requires discussion of end-of-life issues and care directive options.

Learners then convene together to debrief with the faculty. An in-depth discussion of the case including diagnostics, interventions, and plans of care is guided by the faculty. As in previous courses, learners engage in a documentation exercise requiring them to demonstrate competence in documentation of the patient's hospital admission and care plan.

As shown in the previous examples, clinical and skill competencies are scaffolded in simulation by increasing the complexity and acuity of the scenarios. Clinical skills are repeated purposefully and built on in each SBE.

Integration of New and Innovative Technologies Into SBE and Scaffolding

The incorporation of technology into SBEs can facilitate scaffolding, particularly in the AGACNP curriculum. Because scaffolding implies the use of tools and strategies, technology suits both concepts. This is particularly true for some modalities such as augmented reality (AR). The versatility of these technologies allows for their utilization in SBE whether it is in replicating physical characteristics or in facilitating prebrief.[24]

In this curricular exemplar, the utilization of various innovative technologies and scaffolding of the learning process are synergetic. Several modalities of realities (AR and virtual reality [VR]) are incorporated into the scenarios to increase their complexity and simultaneously train learners in the use of new technologies. Incorporating technology into SBEs can also minimize training difficulties.[25] For instance, the use of a VR training system for invasive procedures, such as paracentesis or thoracentesis, can minimize the training difficulties associated with replicating these skills in a mannequin.

Other technologies, such as simulated ultrasonography, can assist the learner in gradually gaining the muscle memory and fine psychomotor skills needed to perform ultrasonography assessments and interventions using the real ultrasound system on trainers designed for a particular skill (eg, central venous catheter placement). In the exemplar curricula, high-fidelity mannequins replicate physiological variances that can be used to scaffold learning as well. For instance, 1 high-fidelity mannequin is used for endotracheal intubation. The trainer can replicate varying measures of the oropharyngeal cavity, thus replicating differing Mallampati Scores.[26] This technology trains AGACNP learners in difficult airway intubation.

Although there is a plethora of training tools and technologies available for realistic and meaningful SBEs, the challenges in training AGACNP prevail. The large number of supplies and associated costs, the amount of time and resources invested in establishing an operational and systematic curriculum, and the toll imposed on faculty, are barriers yet to be overcome.

Summary and Conclusion

Purposeful scaffolding of SBEs can build knowledge and skills of AGACNP learners across a curriculum. Scaffolding of content has the ability to transform learning into translatable bedside skills that learners can readily reflect on. The use of SBE can create platforms or frames of reference for direct application in patient care. Furthermore, scaffolding and SBE can help fulfill NONPF's educational domains and outcomes for AGACNPs. Further exploration and investigation should be done to validate the process within NP competencies. Although AGACNP learners are discussed in this article as an example, scaffolded SBEs should be considered for other specialty and learner levels as well.

CRediT authorship contribution statement

Frank Guido-Sanz: Writing – review & editing, Writing – original draft, Conceptualization. **Christopher W. Blackwell:** Writing – review & editing, Writing – original draft, Conceptualization. **Mindi Anderson:** Writing – review & editing, Writing – original draft, Conceptualization. **Desiree A. Díaz:** Writing – review & editing. **Steven Talbert:** Writing – review & editing.

Declaration of competing interest

In compliance with standard ethical guidelines, the authors report no relationships with business or industry that may pose a conflict of interest.

Funding

No funding received to declare.

References

1. National Organization of Nurse Practitioner Faculties & American Association of. Colleges of Nursing. Adult-gerontology acute care and primary care NP competencies. https://www.nonpf.org/resource/resmgr/files/np_competencies_2.pdf
2. The National Organization of Nurse Practitioner Faculties. National Organization of Nurse Practitioner Faculties' Nurse Practitioner Role Core Competencies. https://www.nonpf.org/page/NP_Role_Core_Competencies
3. American Association of Colleges of Nursing (2021). The Essentials: Core Competencies for Professional Nursing Education. https://www.aacnnursing.org/essentials

4. Schneidereith T, Daniels A. Integration of simulation to prepare adult-gerontology acute care nurse practitioners. *Clin Simul Nurs.* 2019;26(C): 18-23. https://doi.org/10.1016/j.ecns.2018.10.009
5. Jackson K, McCauley P, Konick-McMahan J, Mirza C. Contemporary adult gerontology acute care nurse practitioner (AGACNP) practice: findings from the 2020 American Association of Critical Care Nurses AGACNP practice analysis survey. *J Am Assoc Nurse Pract.* 2023;35(3):199-207. https://doi.org/10.1097/jxx.0000000000000841
6. Hodges AL, Konicki AJ, Talley MH, Bordelon CJ, Holland AC, Galin FS. Competency-based education in transitioning nurse practitioner students from education into practice. *J Am Assoc Nurse Pract.* 2019;31(11):675-682. https://doi.org/10.1097/JXX.0000000000000327
7. Chan TE, Lockhart JS, Schreiber JB, Kronk R. Determining nurse practitioner core competencies using a Delphi approach. *J Am Assoc Nurse Pract.* 2020;32(3):200-217. https://doi.org/10.1097/JXX.0000000000000384
8. Schumacher G, Risco K. Competency-based nurse practitioner education: an overview for the preceptor. *J Nurse Pract.* 2017;13(9):596-602. https://doi.org/10.1016/J.NURPRA.2017.07.020
9. LaManna JB, Guido-Sanz F, Anderson M, Chase SK, Weiss JA, Blackwell CW. Teaching diagnostic reasoning to advanced practice nurses: positives and negatives. *Clin Simul Nurs.* 2019;26:24-31. https://doi.org/10.1016/j.ecns.2018.10.006
10. Shifrin MM, Widmar SB, Ashby NE. Adult gerontology acute care nurse practitioner student and prelicensure registered nurse student perceptions of intradisciplinary, high-fidelity rapid response team simulations. *Clin Simul Nurs.* 2019;26(C):32-37. https://doi.org/10.1016/j.ecns.2018.09.006
11. Guido-Sanz F, Díaz DA, Anderson M, Gonzalez L, Houston A. Role transition and communication in graduate education: The process. *Clin Simul Nurs.* 2019;26(C):11-17. https://doi.org/10.1016/j.ecns.2018.10.013
12. Weil J, Milbrath G, Sharp T, et al. Interdisciplinary partnerships for rural older adult's transitions of care. *Qual Ageing Older Adults.* 2018;19(4):232. https://doi.org/10.1108/QAOA-12-2017-0050; 231.
13. Herrington A, Schneidereith T. Scaffolding and sequencing core concepts to develop a simulation-integrated nursing curriculum. *Nurse Educ.* 2017;42(4): 204-207. https://doi.org/10.1097/NNE.0000000000000358
14. Sanders D, Welk DS. Strategies to scaffold student learning: Applying Vygotsky's zone of proximal development. *Nurse Educ.* 2005;30(5):203-207. https://journals.lww.com/nurseeducatoronline/fulltext/2005/09000/strategies_to_scaffold_student_learning__applying.7.aspx
15. Hakemi A, Blamoun J, Lundahl A, Armstead T, Hakemi K, Malik M. A conceptual framework for instructional design of a high acuity and low occurrence event—simulation based education training of residents, medical students, and nurses in anaphylaxis utilizing curated educational theories. *Adv Med Educ Pract.* 2023;14:101-107. https://doi.org/10.2147/AMEP.S398013
16. Chernikova O, Heitzman N, Stadler M, Holzberger D, Seidel T, Fischer F. Simulation-based learning in higher education: A meta-analysis. *Rev Educ Res.* 2020;90(4):499-541. https://doi.org/10.3102/0034654320933544
17. Masava B, Nyoni CN, Botma Y. Standards for scaffolding in health sciences programmes: A Delphi consensus study. *J Med Educ Curric Dev.* 2023;10, 23821205231184045. https://doi.org/10.1177/23821205231184045
18. Consensus Work Group APRN; APRN Joint Dialogue Group & the. National Council of State Boards of Nursing APRN Advisory Committee. Consensus model for APRN regulation: licensure, accreditation, certification. https://www.ncsbn.org/nursing-regulation/practice/aprn/aprn-consensus.page
19. INACSL Standards Committee. Healthcare Simulation Standards of Best PracticeTM. *Clin Simul Nurs.* 2021. https://doi.org/10.1016/j.ecns.2021.08.018
20. McDermott KL, Pfister JK, Kuester JC, Talbert L, Schindler CA. Integration of a simulation curriculum across semesters in an acute care pediatric nurse practitioner program. *J Pediatr Health Care.* 2022;36(6):611-617. https://doi.org/10.1016/j.pedhc.2022.05.004
21. McConnaughey S, Freeman R, Kim S, Sheehan F. Integrating scaffolding and deliberate practice into focused cardiac ultrasound training: a simulator curriculum. *MedEdPortal.* 2018;14(1), 10671. https://doi.org/10.15766/mep_2374-8265.10671
22. Rosen MA, Salas E, Silvestri S, Wu TS, Lazzara EH. A measurement tool for simulation-based training in emergency medicine: the simulation module for assessment of resident targeted event responses (SMARTER) approach. *Simul Healthc J Soc Simul Healthc.* 2008;3(3):170-179. https://doi.org/10.1097/SIH.0b013e318173038d
23. Guido-Sanz F. Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) 307 Diagnostics & Psychomotor Skills Competency Verification Book. Nursing Handouts, 308 Tools, and Other Documents 2022;3. https://stars.library.ucf.edu/nursing-tools/3
24. Anderson M, Guido-Sanz F, Talbert S, et al. Augmented reality (AR) as a prebrief for acute care simulation. *Clin Simul Nurs.* 2022;69:40-48. https://doi.org/10.1016/j.ecns.2022.05.005
25. Kim MC, Hannafin MJ. Scaffolding problem solving in technology-enhanced learning environments (TELEs): Bridging research and theory in practice. *Comput Educ.* 2011;56(2):403-417. https://doi.org/10.1016/j.compedu.2010.08.024
26. Stutz EW, Rondeau B. Mallampati Score. In *StatPearls* [Internet]. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK585119/

All authors are affiliated with the Department of Nursing Practice, College of Nursing, Academic Health Sciences Center, University of Central Florida, Orlando, FL. Frank Guido-Sanz, PhD, APRN, ANP-BC, AGACNP-BC, CHSE, FAANP, is an associate professor and graduate simulation coordinator; Christopher W. Blackwell, PhD, APRN, ANP-BC, AGACNP-BC, CNE, FAANP, FAAN, is an associate professor and program director adult-gerontology acute care nurse practitioner program; Mindi Anderson, PhD, APRN, CPNP-PC, CNE, CHSOS, CHSE-A, ANEF, FSSH, FAAN, is a professor, and associate dean for simulation and immersive learning, and program director for Healthcare Simulation; Desiree A. Díaz, PhD, FNP-BC, CNE, CHSE-A, ANEF, FSSH, FAAN, is a professor and undergraduate simulation coordinator and director of the Hispanic-Serving Healthcare Professional Certificate; and Steven Talbert, PhD, RN, is a clinical assistant professor and director of the Nursing PhD Program. Dr Guido-Sanz can be reached at Frank.Guido-Sanz@ucf.edu