

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Where Do We Go From Here? The Impact of COVID-19 on Practice Readiness and Considerations for Nurse Leaders



Martha Grubaugh, PhD, RN, NE-BC, Larissa Africa, MBA, BSN, RN, FAAN, and Cheryl Mallory, MSN, RN, NPD-BC

The COVID-19 pandemic has impacted nurses transitioning to practice in a variety of ways over the past 2 years. Analysis from the Versant Database comparing new graduate nurses (NGNs) from 2018–2021 revealed a widened practice gap for NGNs in these specialty areas of practice: critical care, perinatal, and emergency. Additionally, NGNs achieved 100% competency validation sooner in 2020–2021. The analysis also revealed greater diversity of NGNs who participated in a transition to practice program in 2020–2021. Based on these findings, this article proposes recommendations for nurse leaders to consider as NGNs transition into the workforce.

rior to the COVID-19 pandemic, health care organizations and new graduate nurses (NGNs) felt the impact of the academic-practice gap due to increasing patient complexity and time required to achieve clinical competence. The challenges experienced by NGNs transitioning to practice contribute to high turnover. To date, first-year registered nurse (RN) turnover is 25.3%, and replacement cost is between \$10,098 and \$88,000 per nurse. To bridge the academic-practice gap, health care leaders turn to innovative solutions such as transition to practice (TTP) programs and academic-practice bridge programs to develop practice-ready nurses. The pandemic further exacerbated the practice gap when clinical experiences were interrupted, and TTP programs were adapted or

KEY POINTS

- COVID-19 staffing demands highlighted the need for developing practice-ready nurses.
- The widening academic-preparation gap requires academic-practice partnerships to achieve prepared nurses for the 21st century.
- Nurse leaders will need to have a systems approach and develop strategies to preserve resources and ensure a practiceready workforce for the future.

postponed. This article reviews the impact of the academic-practice gap pre-/post-COVID and current challenges with developing practice-ready nurses. Results of the performance gap assessment collected from NGNs who began a TTP program between 2018 and 2021 are shared along with strategies for nurse leaders to consider.

BACKGROUND AND LITERATURE REVIEW

Benner's Novice-to-Expert model and Duchscher and Windey's Transition Shock theoretical framework provide a basis for understanding NGN's transition experience given the academic-practice gap. Unfortunately, experiences during the academic years are not always in alignment with performance expectations in the professional practice setting.⁴ This is further supported via a study using Del Bueno's Performance-Based Development System (PBDS) that revealed only 23% to 35% of NGNs were scoring in the safe or acceptable range.⁵ This is a safety concern and highlights the disparities around the concept of practice readiness, which historically has been ill-defined and has caused confusion for academia and practice. 6-8 However, there is consensus around the need for TTP programs to ensure that NGNs provide safe, quality care, and the National Council of State Boards of Nursing's 5-year research study suggests using a wellstructured nurse residency program to support the transition of NGNs.9 In addition, the American

COMPETENCY PROFILES

Unique to each NGN's clinical practice area's patient population and needs.

PERFORMANCE GAP ASSESSMENT

 Each NGN's assigned competency profile corresponds to identifying gaps in comprehension, clinical judgment, and decision-making.

GAP REMEDIATION

 A tailored learning plan based on the results of the gap assessment provides specific target areas for remediation via classroom experiences or independent learning.

COMPETENCY VALIDATION

· Clinical competencies are validated by a preceptor at the point of care.

OUTCOMES

Assessments, metrics, and evaluations completed during the program and annually up to 5 years.

Figure 1. Versant's Competency-Based System

Academy of Nursing's policy brief recommended that residency programs be required for all NGNs. ¹⁰ To further support the need for developing practice-ready nurses, some organizations implemented academic-practice bridge programs that focus on expected competencies for NGNs at the entry point into practice and during the nursing students' last clinical semester. ¹¹

When the COVID-19 pandemic struck in 2019, the prelicensure and postlicensure experiences of NGNs were severely impacted. Clinical rotations were cancelled, and some were replaced with simulation and/or nonlicensed employment at institutions to meet state board requirements for clinical hours. 7,12,13 During this timeframe, NGNs faced additional licensing challenges due to testing center closures and some organizations cancelled or delayed TTP programs, 14 despite them being a proven strategy to ensure NGNs' ability to provide competent, quality care and to address the workforce needs of the future.

A COMPETENCY-BASED TRANSITION TO PRACTICE PROGRAM

The year-long Versant® TTP program is a competency-based approach to assess and validate an NGN's clinical practice combined with a supportive components structure that includes professional development, self-care strategies, and an evidence-based practice/performance improvement project. The Competency-Based System (Figure 1) includes a set of structures and processes built to assist health care organizations achieve their goals around safety and to efficiently and economically build organizational capacity to meet workforce demands. During the clinical immersion component, NGNs work directly with preceptors and are deemed ready for independent practice once 100% of assigned competencies are successfully validated. NGNs continue with the supportive components portion through their first year of practice. Surveys are collected on the NGNs at different intervals from the beginning of their program up to 5 years.

USE OF A PERFORMANCE GAP ASSESSMENT

In 2015, the performance gap assessment (PGA) was developed based upon a defined set of Versant competencies that make up an individual's competency profile which is unique to the patient population and area of practice (e.g., emergency, critical care, perinatal). The PGA is completed at the start of the TTP program and culminates in an individualized learning plan to guide the NGNs' transition experience. Validation of competencies at the point of care by direct observation continues to be best practice and an emphasis for many TTP programs.

The PGA is a valid, reliable tool that undergoes item-level psychometric analysis at prescribed intervals (every other year and when needed). Item analyses are reviewed for difficulty, ranging from 0.0 (no one answered correctly) to 1.0 (everyone answered correctly). The recommended range for each item is between 0.20 and 0.80. Due to each PGA being tailored for each NGN, there is an unlimited combination of possible items; therefore, test-level analysis cannot be completed.

METHODS

Data from NGNs that participated in the Versant TTP program between 2018 and 2021 was extracted from Versant Voyager®, Versant's web-based system, and was used for this descriptive and comparative study. Demographics, PGA results, and practice environments data pre-pandemic (2018-2019) was compared to data during the pandemic (2020–2021). Specifically, PGA data was evaluated between the 2 groups by comparing the percentage of competencies "ready for validation" (PGA questions answered correctly) and "requiring remediation" (PGA questions answered incorrectly) prior to competency validation. Versant uses its data for evaluation of the program and for quality improvement; therefore, approval and oversight from an institutional review board is not required.

www.nurseleader.com April 2022 135

RESULTS

Over 4100 participants from 13 states across the United States began an NGN TTP program and completed the PGA between 2018 and 2021 (Table 1). those respondents, trends indicate baccalaureate-prepared nurses remain the greatest number of NGNs transitioning into practice. A positive finding from 2020-2021 reveals organizations are hiring more ethnically diverse NGNs to meet the needs of the patient populations served. Concerningly, PGA data revealed a greater practice gap for NGNs in 2020-2021 compared to those who completed a TTP program between 2018 and 2019 (Figure 2). The prevalent preparation gaps identified in the PGA results were for NGNs transitioning into perinatal, emergency, and critical care. Although there was a greater practice gap identified in the PGA results, the NGNs achieved 100% competency validation of the assigned competencies in less time during 2020-2021 compared to 2018-2019 (Figure 3). In 2018-2019, the mean days for reaching 100% competency validation was 143 program days, whereas in 2020-2021, the mean program days was 142. The greatest difference observed was a decrease in the maximum number of program days for the NGN to obtain 100% competency validation, from 639 days in 2018-2019 to 481 program days in 2020–2021. Additionally, there were more instances of 100% competency validation taking longer than 365 program days for the 2018-2019 NGN group.

DISCUSSION

The demographics between the 2 groups highlights that the nursing profession remains predominantly female; however, there is more ethnic diversity in the 2020–2021 NGN participant group, with Hispanic and Latino representing almost 14% of the sample. This increase in ethnic diversity aligns with the recommendations in the *Future of Nursing 2020-2030* report. The report identifies the need to systemically support and increase ethnic diversity in the nursing workforce so that nurses are representative of the patients and populations they serve.

Most of the sample had a bachelor of science in nursing (BSN) degree, and 40% had an associate degree in nursing (ADN). Both degrees contribute to the short-term and long-term preparation of nurses and increasing the workforce. Returning to school can be financially and logistically challenging, especially when many organizations are re-evaluating tuition reimbursement, and there is often limited flexibility in scheduling guidelines/policies.

The academic-practice gap that existed prior to the pandemic is apparent to nurse leaders and supported in literature. ^{17,18} The results of this study revealed more competencies requiring remediation for NGNs who were transitioning into their roles in perinatal,

Table 1. NGN Demographics 2018-2021

	2018–2019	2020-2021
	n	n
Generations		
Boomers 1946–1964 (Ages 57–72)	5	7
Gen X 1965–1976 (Ages 45–56)	60	66
Gen Y 1977–1995 (Ages 26–44)	963	862
Gen Z 1996–Present (Ages 19–25)	1108	1033
Did not disclose	53	21
Gender		
Female	1871	1702
Male	318	284
Did not disclose	0	3
Highest nursing degree achieved		
Diploma	5	6
ADN	823	810
BSN	1315	1132
MSN	45	35
Did not disclose	1	6
Ethnicity		
African American	179	149
Asian American	169	177
Hispanic	71	237
Latino	10	32
Multiracial	101	65
Native American/ Alaska Native	4	6
Other	127	21
White	1514	1294
Did not disclose	14	8

emergency, and critical care since the COVID-19 pandemic. It is possible that NGNs entering these specialties were fast-tracked with the necessary competencies to be able to enter the workforce and contribute to different care models to meet the COVID-19 care demands. Even though there was a greater practice gap for these specialties, NGNs achieved 100% competency validation of their assigned competencies in less time in 2020–2021 than in

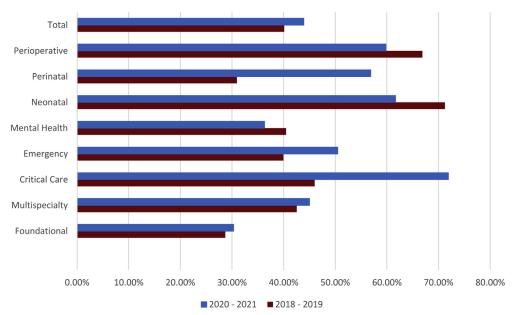
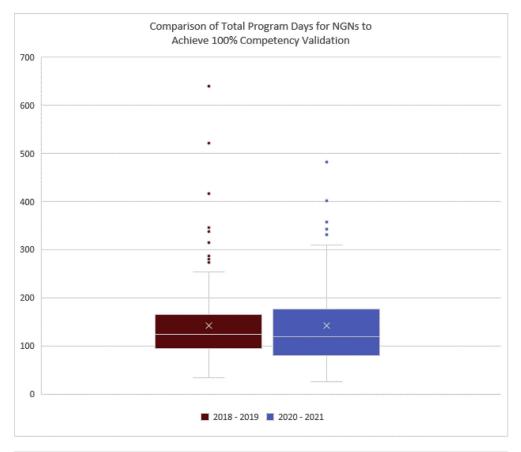


Figure 2. Performance Gap Assessment: Competencies Requiring Remediation Prior to Validation



	Min	Max	Quartile 1	Quartile 3	Median	Mean
2018–2019	33	639	94	164	124	143
2020-2021	26	481	80	176	120	142

Figure 3. Total Number of Program Days to Achieve 100% Competency Validation Comparing 2018–2019 to 2020–2021

www.nurseleader.com April 2022 137

2018–2019. It is possible the maximum length of time to achieve 100% competency validation in 2018–2019 is an outlier; however, there were more instances of validation taking longer than 365 days in this group. This potentially describes how further competency validation was paused at the onset of the pandemic in March 2020 and contributed to a longer validation time in 2018–2019.

Overall, these results support the need to rapidly orient and deploy NGNs to clinical practice areas to meet COVID-19 care demands. Validating competencies in less time could decrease the amount of time for skills practice, further contributing to NGNs' fears and perceptions of feeling prepared. ¹³

STRATEGIES FOR NURSE LEADERS

Recommendations to Enhance Academic-Practice Partnerships

Academic-practice partnerships are foundational to advancing nursing practice. The American Organization for Nursing Leadership (AONL) and the American Association of Colleges of Nursing (AACN) have been collaborating since 2010 to leverage academic-practice partnerships to address the critical issues of the nursing profession. Issues include workforce shortages, the need for new care models, and preparing more highly educated nurses. 19 Successful models and examples of partnerships that have led to improved nurse and student outcomes are present in the literature. The Future of Nursing 2020-2030 report¹⁵ and the new AACN Essentials²⁴ highlight that academic-practice partnerships are imperative to achieving the identified recommendations and preparing nurses for the 21st century. Strategies for nurse leaders to consider for enhancing academic-practice partnerships include:

- **1.** Establish multilevel relationships between and across academia and practice that are based on trust, respect, open communication, and mutual investment. ¹⁹
- **2.** Develop a shared vision and mutual goals with methods to evaluate progress. ¹⁹
- **3.** Consider joint appointments, practice leaders participating in clinical instruction, and collaborative research within the clinical practice environment.
- 4. Leverage nurse extern programs and hire nursing students in roles such as nursing assistants, patient care techs, etc. Collaborate with academia for program expansion and recruitment.
- **5.** Consider academic-practice bridge programs that link the last year of academic preparation to the clinical practice environment where the nurse will enter practice or a TTP program. A structured competency-based program helps develop

competencies sooner and engages students in the profession. It also exposes them to organizational culture earlier, thus improving retention and potentially TTP time. 11,25

Recommendations to Address the Opportunities Around the Academic-Practice Gap

NGNs are an investment and an integral part of many nurse leaders' workforce and recruitment strategy. Given the current health care environment related to workforce shortages, limited preceptors, fiscal considerations, and increasing patient volume and complexity, nurse leaders must consider operational strategies to address current NGN challenges and the ongoing academic-practice gap. Strategies for nurse leaders to consider for addressing the academic-practice gap include:

- 1. Provide ongoing support and check-in with NGNs beyond the first year of their TTP program. ²⁶ Even though an NGN completed a TTP program, they may still feel unsure of their ability to practice independently due to limited clinical experiences. The high number of hospitalized COVID-19 patients may have affected the mental well-being and transition process for NGNs, therefore potentially influencing their overall job satisfaction, engagement, and sense of belonging.
- **2.** Create an alternative assignment with an educator or other highly skilled and competent nurse as a resource to assist and answer NGN questions. This is particularly important for off-shifts and weekends. ¹⁷
- **3.** Evaluate and redesign TTP programs and instruction models to include additional practice of foundational competencies. ¹⁹ Consider simulation as an adjunct for additional practice and develop flexible systems to meet individual needs. ²⁷
- **4.** Review and consider new preceptor models based on available resources and the needs of NGNs. Design preceptor standard work and create a development program to decrease variation in teaching and improve alignment with best practice. ^{18,28,29}
- **5.** Implement strategies to redistribute clinical expertise and develop career pathways to mitigate future loss of experience. ¹⁷ Many acute care nurses are leaving for travel positions and opportunities in the outpatient setting, and this leaves an experience gap in the acute care setting.
- **6.** Develop outcomes that measure program effectiveness, overall investment, and impact on patient outcomes. This will assist with making program adjustments and to articulate the value of TTP programs.

LIMITATIONS

Data used for this analysis are based on TTP program participant and preceptor reporting. It is possible reporting errors occurred or the time to validate was influenced by the availability and ability of the preceptor to document competency validation. It is also important to note that variation in preceptor work processes related to validation documentation (e.g., real time versus clustering) could have impacted the total number of program days to achieve 100% competency validation. This study is descriptive in nature and therefore not conclusive. Additionally, results are not generalizable to all organizations or TTP programs due to confidentiality of practice sites and the specific structure and competencies of the Versant TTP program.

SUMMARY

Nurse leaders must understand current state of practice readiness so necessary adjustments and plans can be implemented to ensure a competent and sufficient workforce moving into the future. Although the COVID-19 pandemic impacted the academic experience and onboarding of NGNs, it also presents an opportunity to bring academia and practice together in ways that have never previously happened. Local, statewide, or national academic-practice partnerships are essential to advance the nursing profession and improve the overall health of our nation. The widening academic-practice gap for some specialties requires special attention, and further investment in NGNs is needed to impact their practice readiness, job satisfaction, and well-being. Nurse leaders must operationalize a systems approach and develop strategies to assist the transition of NGNs through fostering supportive environments and programs, which will help mitigate turnover of a valuable segment of the nursing workforce. Specifically, nurse leaders must treat TTP programs as an investment rather than a cost to preserve resources and ensure a practice-ready workforce for the future.

REFERENCES

- Nursing Solutions Inc. NSI Research Library. Available at: https://nsinursingsolutions.com/Library.php. Accessed July 25, 2020
- AL-Dossary R, Kitsantas P, Maddox PJ. The impact of residency programs on new nurse graduates' clinical decision-making and leadership skills: a systematic review. Nurse Educ Today. 2014;34(6):1024-1028.
- **3.** Benner P. From novice to expert. *Am J Nurs*. 1982;82(3):402-407
- **4.** Duchscher JB, Windey M. Stages of transition and transition shock. *J Nurses Prof Dev.* 2018;34(4):228-231.
- Kavanagh JM, Szweda C. A crisis in competency: The strategic and ethical imperative to assessing new graduate nurses' clinical reasoning. Nurs Educ Perspect. 2017;38(2):57-62.
- Shinners J, Africa L, Mallory C, Durham H. Versant's nurse residency program: a retrospective review. *Nurs Econ*. 2021;39(5):239-246.

- O'Flynn-Magee K, Hall W, Segaric C, Peart J. The impact of COVID-19 on clinical practice hours in pre-licensure registered nurse programs. *Teach Learn Nurs*. 2021;16:3-4.
- **8.** Russell K, Juliff D. Graduate nurse transition programs pivotal point of participants' practice readiness questioned during the COVID-19 pandemic crisis: a scoping review. *J Contin Educ Nurs*. 2021;52(8):392-396.
- **9.** Spector N, Blegen MA, Silvestre J, et al. Transition to practice study in hospital settings. *J Nurs Regul*. 2015;5(4):24-38.
- **10.** Goode CJ, Glassman KS, Ponte PR, Krugman M, Peterman T. Requiring a nurse residency for newly licensed registered nurses. *Nurs Outlook*. 2018;66(3):329-332.
- **11.** Trepanier S, Mainous R, Africa L, Shinners J. Nursing academic-practice partnership: the effectiveness of implementing an early residency program for nursing students. *Nurse Leader.* 2017;15(1):35-39.
- **12.** Guerrero JG, Hafiz AH, Eltohamy NAE, Gomma N, Jarrah IA. Repeated exposure to high-fidelity simulation and nursing interns' clinical performance: impact on practice readiness. *Clin Simul Nurs*. 2021;60:18-24.
- **13.** Smith SM, Buckner M, Jessee MA, Robbins V, Horst T, Ivory CH. Impact of COVID-19 on new graduate nurses' transition to practice: loss or gain? *Nurse Educ*. 2021;46(4):209-214.
- 14. Crismon D, Mansfield KJ, Hiatt SO, Christensen SS, Cloyes KG. COVID-19 pandemic impact on experiences and perceptions of new graduates. J Prof Nurs. 2021;37(5):857-865.
- **15.** National Academies of Sciences, Engineering, and Medicine. The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity. Washington, DC: National Academies Press; 2021.
- 16. Wolff AC, Pesut B, Regan S. New graduate nurse practice readiness: perspectives on the context shaping our understanding and expectations. *Nurse Educ Today*. 2010;30(2):187-191.
- **17.** Virkstis K, Herleth A, Rewers L. Closing nursing's experience-complexity gap. *J Nurs Adm.* 2019;49(12):580-582.
- Herleth A, Virkstis K, Renfroe J, Rewers L. The challenging road to clinical competence for new graduate RNs. J Nurs Adm. 2020;50(4):185-186.
- Beal JA, Zimmerman D. Academic-practice partnerships: update on the national initiative. *J Nurs Adm.* 2019;49(12):577-579
- 20. Gierach M, Knuppe M, Winterboer V, Randall R. Creating a culture of caring: a collaborative academic practice approach to clinical education. *Nurs Forum*. 2019;54(3):386-391.
- **21.** Maneval R, Browne KP, Feldman HR, et al. Collaborative academic-practice approach to meeting educational and workforce needs. *J Nurs Adm.* 2019;49(10):463-465.
- **22.** Jeffries PR, Rose L, Belcher AE, et al. A clinical academic practice partnership: a clinical education redesign. *J Prof Nurs*. 2013;29(3):128-136.
- **23.** Robertson B, McDermott C, Star J, Clevenger CK. The academic-practice partnership: educating future nurses. *Nurs Adm Q*. 2021;45(4):E1-E11.
- **24.** American Association of Colleges of Nursing. The essentials: Core competencies for professional nursing education. 2021. https://www.aacnnursing.org/Portals/42/AcademicNursing/pdf/Essentials-2021.pdf. Accessed November 17, 2021.
- **25.** Mainous RO, Trepanier S, Shinners J, Smith SJ, Edwards S. Differences in knowledge base at first registered nurse employment following introduction of a focused, high-fidelity simulation in a baccalaureate program. *Nurse Leader*. 2017;15(3):184-187.
- **26.** Koneri L, Green A, Gilder RE. Touchpoints: a business strategy to retain new graduate nurses. *J Nurs Adm.* 2021;51(7/8): 401-408.

www.nurseleader.com April 2022 139

- **27.** Harper MG, Bodine J, Monachino A. The effectiveness of simulation use in transition to practice nurse residency programs: a review of literature from 2009 to 2018. *J Nurses Prof Dev.* 2021;37(6):329-340.
- **28.** Shinners J, Africa L, Deasy P, Franqueiro T. The married state approach to precepting. *J Contin Educ Nurs*. 2018:49(11):514-518.
- **29.** Shinners J, Mallory C, Franqueiro T. Preceptorship today: moving toward excellence. *J Contin Educ Nurs*. 2013;44(11):482-483.

Martha Grubaugh, PhD, RN, NE-BC, is executive director at Versant Center for the Advancement of Nursing in Las Vegas, Nevada. She can be reached at mgrubaugh@

versant.org. Larissa Africa, MBA, BSN, RN, FAAN, is president and Cheryl Mallory, MSN, RN, NPD-BC, is assistant vice president of analytics and outcomes at Versant Healthcare Competency Solutions in Las Vegas, Nevada.

Note: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

> 1541-4612/2022/\$ See front matter Copyright 2021 by Elsevier Inc. All rights reserved. https://doi.org/10.1016/j.mnl.2021.12.016

Ordering Reprints or Seeking Permissions?

Visit reprints.elsevier.com for

a quick and easy way to:

- ✓ Search for an article
- ✓ Get a quote
- ✓ Place an order online

