

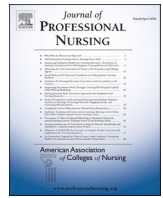


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Faculty Perceptions of the Impact of the COVID-19 Pandemic on New Graduate Nurses' Transition to Practice: A Qualitative Study

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ABSTRACT

Background: The COVID-19 pandemic disrupted nursing education worldwide. Most studies have focused on how the pandemic affected students. With an alarming workforce shortage, a better understanding of the pandemic's impact on new nurses is vital to proactively develop strategies to promote success of the profession's newest members.

Purpose: This study explored faculty perceptions of the pandemic's impact on new nurses' practice preparedness and recommendations for promoting effective transition to practice.

Methods: Using an exploratory-descriptive qualitative approach and convenience sampling, 116 nurse faculty from across North Carolina, United States responded to open-ended questions within an electronic survey. Data were analyzed with thematic analysis.

Results: Four themes emerged: 1) *Less Hands-On*, 2) *Transition-to-Practice Opportunities*, 3) *Key Role of Preceptors*, and 4) *Provide Additional Support*.

Conclusions: Findings provide strategies clinical nurses and leaders can implement to meet the needs of new nurses entering professional practice during the ongoing pandemic. Due to less hands-on learning, pandemic graduates may benefit from extended time with a trained preceptor and opportunities to focus on clinical reasoning, managing multiple patients, effective communication, and safe skill performance. Upon entering the clinical environment, pandemic graduates' inexperience may increase the likelihood of transition shock, requiring multi-faceted approaches for providing support.

Introduction

The sudden, widespread emergence of coronavirus disease-2019 (COVID-19) caused significant disruptions in nursing education worldwide. The COVID-19 pandemic created massive shutdowns in Spring 2020, which drastically changed instructional delivery in prelicensure nursing programs (Kalanlar, 2022; Zerwic et al., 2021). Traditional face-to-face classes, laboratory and simulation instruction, and clinical experiences were mostly offered via online learning environments from Spring 2020 to Spring 2021. Most notably, there was a significant reduction in clinical learning hours because many healthcare facilities

restricted clinical experiences of nursing students (Kalanlar, 2022; Zerwic et al., 2021). The ongoing nature of the pandemic has continued to disrupt nursing education (National Council of State Boards of Nursing, 2022). For example, colleges have had to restrict occupancy for classrooms requiring online class delivery, students requiring quarantine or isolation have missed learning experiences, and clinical sites have been plagued with heightened patient acuity/volume and staff stress impacting clinical learning. Little is known about how this will affect new nurses who graduate and transition to professional practice during the pandemic.

Prior to the COVID-19 pandemic, newly graduated nurses' transition

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to professional practice was problematic. In the first 12 months of practice, new nurses often experience transition shock as they adjust to their new environment and realize the many differences between being a student and professional nurse (Duchscher, 2009; Hampton et al., 2021; Murray et al., 2019). Further magnifying their stress, new nurses are required to quickly acclimate to their professional role, while also entering workplaces with high patient acuity and staff turnover (Graf et al., 2020). As a result, high rates of new nurse attrition are a recognized problem worldwide (Brook et al., 2019). Due to the ongoing global nursing workforce shortage, which is being further exacerbated by pandemic-related burnout of existing nurses (International Council of Nurses, 2021, 2022), it is imperative for healthcare facilities to proactively take steps to ensure new nurses graduating during the pandemic are successful upon starting their careers. Ensuring the success of pandemic graduates is vital to rebuilding the nursing workforce.

Background

Nursing education has historically been reliant on hands-on learning to develop the knowledge and skills of students (Michel et al., 2021; Wallace et al., 2021). The sudden shift from traditional to online learning during the COVID-19 pandemic significantly reduced the number of clinical hours in prelicensure nursing programs. To compensate for loss of hands-on clinical hours, nursing students and faculty members embraced various forms of virtual learning as the main strategy to ensure continuous development of nursing competencies. However, the impact of these changes is not yet known because students who have learned during the pandemic are just now entering the nursing workforce. Research indicates faculty perceive pandemic graduates as being less prepared for professional practice (Powers et al., 2021), and this creates patient safety and workforce concerns. It is essential to understand the needs of pandemic graduates to help clinical nurses and leaders provide opportunities to bridge the gap.

Current literature on nursing students during the pandemic has mostly come from studies conducted outside the United States (US). Globally, the pandemic caused disruptions in the lives of nursing students, resulting in physical and psychological effects that impacted academic performance (Agu et al., 2021; Dewart et al., 2021; Dutta et al., 2021; Ersin & Kartal, 2020; Gallego-Gomez et al., 2020; Garcia-Gonzalez et al., 2021; Gaur et al., 2020; Gopal et al., 2021; Hussien et al., 2020; Ilankoon et al., 2020; Langegard et al., 2021; Rosaline & Anggraeni, 2021). Findings show the initial change to online learning was hampered by students' limited preparedness for online learning (Dutta et al., 2021; Gaur et al., 2020; Langegard et al., 2021), with technological barriers (such as lack of computers and internet access) prevalent (Agu et al., 2021; Gaur et al., 2020; Ilankoon et al., 2020). Moreover, nursing students were encountering non-school concerns such as financial struggles, family responsibilities, and modified living conditions (Gallego-Gomez et al., 2020; Heilferty et al., 2020; Rosaline & Anggraeni, 2021). To date, international research has focused on the effect of the pandemic on nursing students' academic performance, not on the potential impact on new nurses' entry to practice.

In the US, there have been few published studies on the impact of the pandemic on nursing students, with all reporting challenges related to the shift to online learning and missed opportunities for clinical learning (Fitzgerald & Konrad, 2020; Fogg et al., 2020; Heilferty et al., 2020; Michel et al., 2021). Meanwhile, Smith et al. (2021) found new nurses who entered the workforce in July 2020, with less than one semester of disrupted clinical experiences, reported feeling anxious and less competent. The limited research to date indicates there may be a reduced level of practice readiness, and this may be magnified for graduates whose education was affected for multiple semesters. To promote a successful new nurse transition and to ensure patient safety, there is a need to better understand how pandemic-related educational changes may have impacted learning and acquisition of competencies essential to safe care. Further, the ongoing nature of the pandemic

continues to disrupt nursing education, and this may persist, requiring new graduate transition-to-practice (TTP) programs (also known as nurse residency or orientation programs) to address preparedness gaps for an extended time. Even if the pandemic follows a positive trajectory, the pandemic-related educational changes and increased student stress that occurred appear to be resulting in ongoing student disengagement, and faculty from all areas of higher education report having to implement strategies to help students engage and learn (McMurtrie, 2022). It is also likely that some of the pandemic-related changes in nurse education will remain in place post-pandemic (Kalanlar, 2022), and understanding how these changes may impact the transition needs of future new nurses is important. Therefore, the aim of this study was to explore nurse faculty perceptions of the pandemic's impact on new nurses' practice preparedness, and recommendations for promoting effective transition to professional practice.

Methods

Design and research questions

Academic nurse faculty researchers partnered with nurse leaders from a large medical center to explore faculty perceptions of the impact of the COVID-19 pandemic on new nurses and identify strategies to promote successful transition to professional practice. A survey design was used to obtain a sample of faculty from multiple nursing programs, as pandemic-related educational changes were not uniform. Survey questionnaires and open-ended questions were administered to answer the following research questions: 1) How did prelicensure nursing education change during the pandemic?; 2) How do nurse faculty perceive practice readiness among pandemic graduates, as compared to pre-pandemic graduates?; 3) What are nurse faculty members' perceptions of how pandemic-related educational changes will affect new nurses' entry to practice?; and 4) What strategies do nurse faculty recommend TTP programs implement to help pandemic graduates succeed? This manuscript reports the analysis of open-ended questions administered to answer research questions 3 and 4, and an exploratory-descriptive approach was used. A descriptive-correlational design was used to answer research questions 1 and 2, and results are reported separately (Powers et al., 2021).

Sample recruitment

A convenience sample of 116 faculty teaching in nursing programs across North Carolina, US was obtained. Inclusion criteria were employment as a full- or part-time faculty member in a prelicensure nursing program. In March 2021, all nursing program directors statewide were emailed a brief study description and asked to forward the email to their faculty. The email invited faculty to click on a survey link to participate in the study. The first 100 participants completing the survey were offered the option to enter their email address for a \$25 gift card. A reminder email was sent to program directors 2 weeks later. Data collection ended in April 2021, 4 weeks after first email. There were 135 faculty who consented to participate, and 116 faculty completed the survey, including the open-ended questions (85.9 % completion rate). Due to the recruitment procedure, it is not known how many faculty received the email invitation but opted not to click on the link to participate.

Data collection

The research team's hospital and university granted ethics review approvals. The email invitation included a link to the online survey site in Qualtrics. When potential participants clicked on the link, they viewed study information, and survey completion conveyed consent to participate. Participant confidentiality was protected by not collecting personal identifiers such as name. It was optional for participants to

enter their email address for a gift card. Upon completion of data collection, email addresses were removed from the data set. The research team planned to redact any names or places of employment typed in response to the open-ended questions; however, no participants included such information in their responses.

Participants clicked forward to complete survey items: demographic/professional information, pandemic-related teaching changes, and the Nursing Practice Readiness Tool (Nursing Executive Center, The Advisory Board Company: www.advisory.com). Next, participants completed five open-ended questions that were created by the research team to explore perceptions of the pandemic's impact on learning outcomes and gather recommendations for transition-to-practice programs (Table 1). Due to the anonymous survey format, it was not possible to ask probing questions to further explore participant responses or return the findings to participants for checking. Additionally, it is not known how many potential participants viewed the study information but opted not to participate; however, all participants who completed the survey questionnaires also completed the open-ended questions.

Data analysis

Descriptive statistics were used to describe the sample and pandemic-related teaching changes. Participants' responses to open-ended questions were transferred from Qualtrics to Microsoft Word transcripts for analysis. Thematic analysis followed Braun and Clarke's (2006) method. The data were analyzed by the four members of the research team to promote credibility through investigator triangulation. Researchers had between 10 and 29 years of nursing experience, and all had worked with upcoming and recent new nurse graduates for between 7 and 15 years.

Analysis began with each researcher declaring their personal biases, and then independently reading and re-reading the transcripts to immerse themselves in the data. During this process, the individual researchers made detailed notes to identify codes and preliminary theme ideas that emerged from the data. Next, the research team met on Zoom to present their personal biases and their independent analyses. The team compared the analyses, which were noted to be similar, and reached consensus on themes and subthemes. The team lead recorded notes to produce an audit trail, supporting confirmability and transferability. The notes were emailed, and all team members re-checked their data sources to confirm the final themes and subthemes. Credibility of the analysis process and results was enhanced by performing individual and group analyses, while dependability was addressed with prolonged engagement with the data and rechecking codes and themes at various points in the analysis.

Results

Most of the 116 nurse faculty participants identified as white, non-Hispanic (87.9 %) and female (91.4 %). The majority had >10 years of nursing experience (85.3 %), and 39.8 % had taught for >10 years.

Table 1
Open-ended questions

- 1) How do you think learning/education changes during the COVID-19 pandemic will affect your students when they graduate and enter into professional nursing (i.e., when they start their career as a new nurse)?
- 2) What are your biggest concerns for newly graduated nurses who learned during the pandemic as they begin their first job as a nurse? What areas do you think new nurses will be most deficient in?
- 3) What content and/or experiences do you think need to be added to/augmented in new nurse orientation/residency/transition-to-practice programs to help new graduate nurses who learned during the pandemic?
- 4) What guidance would you provide to educators and preceptors working with new nurses who learned during the pandemic and are starting their careers?
- 5) Is there anything else that you want to share?

Participants were largely full-time faculty (89.3 %) teaching in a variety of settings (82.8 % didactic, 77.7 % clinical, 66.4 % laboratory, 62.9 % simulation, 58.6 % online). They reported a wide range of pandemic-related changes to the way they taught their courses. Initially, didactic courses were moved from classroom to online for most (86.2 %), and then a hybrid approach (students in classroom and watching online) was often used as the pandemic progressed. Laboratory and simulation instruction was initially moved online (36.2 % and 48.3 % respectively), and then repeated more frequently so less students attended together. Clinical experiences were initially cancelled (31.0 %), changed to virtual simulations (51.7 %), or entailed completing non-simulation activities (26.7 %). When clinical learning later resumed, hours were often reduced, with some programs adding more laboratory/simulation time. Just 17.2 % indicated "Absenteeism has not been an issue" in their clinical courses. Thematic analysis revealed four themes.

Theme 1: less hands-on

Overwhelmingly, faculty expressed concern over the loss of clinical learning due to the pandemic: "Hands-on care was cut down drastically" and "Continuity of any clinical practice was grossly compromised...students go to the bedside once every 2–3 weeks...without the continuity, they lose whatever they gained." With markedly less clinical hours, faculty felt pandemic graduates will be overall less prepared than prior graduates: "Their hands-on care is going to take some time to develop compared to graduates before the pandemic." Some also indicated clinical learning was especially restricted for specialty areas (such as pediatrics and maternity), and experiential learning for these populations occurred only through simulation.

Simulation helps but does not replace clinical learning

Faculty highlighted strategies used to provide experiential learning when unable to access clinical sites. At the pandemic start, programs quickly pivoted to provide experiential learning via virtual simulations. While this offered exposure to clinical scenarios, it was not as helpful as in-person clinical learning: "The transition from in-person clinicals to virtually simulated clinicals had a great negative impact on student readiness." For many, barriers to clinical learning continued to persist and in-person simulations were being used to augment clinical hours: "They have had shortened clinical hours replaced by simulation which gave them opportunity to study pathophysiology and treatments. But it would have been beneficial to have additional practice in the clinical area." Yet, it was also suggested that more simulation may have been beneficial: "We all know there can be a lot of waiting around for a faculty member [in clinical], but in simulation, that did not happen." Programs also often reduced simulation class sizes, which may have enhanced learning because "more help could be given." Although simulations were described as helpful, most faculty stressed that limited clinical hours disadvantaged student learning: "My biggest concern is lack of hands-on experience due to restrictions in their clinical education. Simulation activities are good, but they are not a replacement for hands-on learning."

Difficulty applying knowledge to patient care

Although faculty felt pandemic graduates obtained necessary knowledge, they were concerned over missed opportunities to apply knowledge to actual patient care: "Their knowledge level will be equal to pre-pandemic students, and some may have gained more knowledge than normal. What will lack is real-world knowledge." The potential for reduced ability to "make connections from textbook to reality" and "apply information in the real world" was repeatedly expressed. Essentially, faculty suggested pandemic graduates "will be prepared theoretically but not clinically." This is troublesome because "you can have all the knowledge in the world, but what you do with it matters most." While pandemic graduates may have "working knowledge of what needs to be done...doing it appears to be an issue and creates safety concerns." Additionally, by not applying learned nursing care to actual patients, faculty indicated some

students may not have developed a sense of the safety risks inherent in care provision: *“I have noticed an increased number of students who just want to pass and do not see the connection between class and clinical, nor do they understand the consequences of this.”*

Challenges of remote classroom learning

Although most faculty focused on the loss of clinical learning, some described negative effects stemming from online didactic education. One participant described the potential impact on patient safety: *“Methods of learning have been reduced to fragmented visual or auditory learning, combined with distractions of home, unease with asking questions on video, and large volume of information passed through these mediums (not even including technical difficulties). As a result, students often lack key lecture information, ask too little too late, and are not processing information with all methods they might learn by. My concern is they will not have understood the concepts on a thorough level and will be deficient in critical thinking and quick thinking in a crisis.”* There were also concerns about how remote learning may have affected professionalism, as some students *“displayed lack of accountability for their actions and blamed their failures on the pandemic...this is very concerning because everything in nursing is about accountability.”*

Theme 2: transition-to-practice opportunities

Faculty participants were asked about potential areas of deficiency among pandemic graduates to highlight specific focus areas for TTP programs. While they felt learning needs will vary according to the individual and how their education was affected, faculty identified areas that are likely to *“need to be further developed once in practice.”*

Clinical reasoning and prioritization

Focusing on enhancing ability to clinically reason and prioritize was overwhelmingly recommended. Faculty felt clinical learning is crucial to develop one's ability to reason through patient situations and *“make the nursing judgment of who needs their priority of care.”* Though helpful, online activities were not felt to be as effective as clinical learning: *“There has been a disconnect without live clinical and relying on virtual platforms to try to induce critical thinking.”* Clinical learning challenges students to pull together the full picture and without these experiences, pandemic graduates may *“be so focused on a to-do list, they will not be able to conceptualize how all things come together.”* As a result, there is a need to focus on preventing *“failure to recognize and failure to rescue”* by helping cultivate pandemic graduates' ability to anticipate and recognize problems and respond effectively. One participant explained: *“My biggest concern is the new grad will not identify a problem quickly enough (i.e., unable to recognize subtle changes of a patient's condition). I also have concern that even if they can recognize the changes, they won't know how to get the help they need.”* Another explained the potential for difficulty in determining the best course of action: *“Basic knowledge was achieved; however, challenging one's self with bringing the next thought of ‘what to do’ was diminished by not being in the clinical setting.”*

Managing multiple patients

Learning to manage multiple patients is a continued need because *“virtual simulation doesn't provide more than one patient at a time.”* Further, when students could be present in clinical settings, they *“were limited as to the number of patients they could take at a time to limit exposure to COVID and make contact tracing easier. This limited opportunities to balance care needs of multiple clients and learn how to prioritize and organize.”* Due to their inexperience, pandemic graduates may struggle with organizing responsibilities. Further, without a foundational understanding of the nurse's day-to-day routine that develops from clinical observations and practice, pandemic graduates may be challenged to *“think of all the things they will need to do at one time,”* especially in fast-paced environments. TTP programs should also focus on time management and delegation as the principles may have been taught, but pandemic graduates likely had

few opportunities to observe or practice this in clinical settings.

Communication

Limited in-person learning resulted in fewer team activities, and faculty suggested pandemic graduates *“will not be able to work together as well as in the past.”* Likewise, pandemic graduates *“missed out on the rich experience of communication with pharmacists, providers, case managers”* and faculty felt their *“interdisciplinary communication skills will be hindered due to lack of exposure.”* One participant also cautioned that pandemic graduates may be less confident to initiate communication due to negative experiences: *“Interprofessional communication has been negatively affected by COVID...staff have been extra-stressed and that has been evident in the communication our students have been exposed to. I'm concerned graduates will find it more difficult to be patient advocates due to observing and being on the receiving end of some of those difficult interprofessional communication experiences.”* Therefore, TTP programs should provide additional practice with team collaboration, and clear and concise communication.

Limited clinical experience was also felt to affect communication with patients and families. Because *“communication skills are modeled in clinical areas,”* faculty felt pandemic graduates could struggle with knowing *“how to approach patients”* and they may have *“decreased ability to develop rapport.”* Additionally, pandemic graduates likely had few opportunities to work with family members due to visitor restrictions: *“Now that visitors are starting to come back into hospitals, I have heard students say, ‘I'm not used to dealing with family members.’ It will be hard to adjust to extra people in the room asking questions.”* Continued development of patient and family communication skills was suggested.

Technical skills

TTP programs should help build technical skills because pandemic graduates had *“decreased kinesthetic learning at the bedside.”* It may be beneficial to have *“more skills acquisition and practice with medical equipment”* and to learn about *“hospital policies and how to apply them.”* The skill most frequently mentioned was medication administration, primarily due to limited clinical performance opportunities. The consequence was explained: *“What I see students missing most often is basic identification of the client prior to medication administration.”* Next, faculty reported *“assessment with actual patients has been limited”* and suggested more practice. They also advised practicing a wide range of psychomotor skills. One participant highlighted a specific need to practice skills that were restricted: *“They may be deficient in respiratory care...students were limited to no COVID positive or rule-out patients or aerosolizing procedures.”* It will be important to review precautions for various infectious diseases and specifically address the care of patients with COVID-19. At the same time, other participants were less concerned with skill deficits and instead emphasized focusing on clinical reasoning: *“Students seemed to master skills slightly below average compared to pre-COVID, but the critical thinking piece that comes from in-person clinical is missing.”*

Capitalize on strengths

While continued learning is needed, faculty felt pandemic graduates will have certain strengths. Pandemic graduates persevered through continuous changes and obstacles because they are dedicated to becoming nurses: *“New graduates coming to the bedside are strong minded and want to be nurses...otherwise they would have quit like many of their peers did when we went online.”* Other strengths they will likely bring to their professional careers are flexibility, adaptability, and resilience: *“Our graduates have gained a greater appreciation of the need to be flexible; there is usually more than one way to accomplish a goal...perseverance”* and *“Learning through a pandemic offers a different perspective on resilience and adaptability that is needed in a shifting healthcare landscape.”*

Theme 3: key role of preceptors

Faculty stressed the pivotal role of preceptors in helping pandemic

graduates safely and effectively acclimate to the nurse role. It was felt that “preceptors will be extremely important this go round, more so than in the past” because the “preceptor [will need to] cover the gap” resulting from clinical inexperience.

Prepare preceptors

Faculty recommended informing preceptors of the educational changes that occurred during the pandemic. They felt preceptors need to “understand these students missed out on hands-on clinical experience... while this time was not wasted, simulation is not the same.” Awareness of the learning experiences pandemic graduates did and did not have will aid preceptors in guiding them as they transition into the nurse role. Specifically, preceptors should be advised that pandemic graduates are likely to “know what they need to know, but the hands-on time may have been limited so they will need guidance.” Although preceptors should, in general, “consider the new graduate to be more of a novice than in past years,” participants encouraged “individual assessments as the pandemic will affect each student differently. Some thrived in the online learning environment; some didn't. Different cohorts may miss different subject areas or experiences depending on timing.” Assessing experiences, knowledge, and abilities can help preceptors, in collaboration with clinical nurse educators, to develop learning plans tailored to individual needs.

Have patience but hold accountable

Faculty repeatedly encouraged preceptors to have patience when working with pandemic graduates: “Be patient with them...remember they have not had the same amount of hands-on nursing that previous graduates had.” With less clinical experience, pandemic graduates will “have a lower level of confidence and doubt themselves much more,” requiring a higher level of “reassurance from preceptors.” Preceptors were cautioned to expect the need to provide more support, guidance, and coaching than with prior graduates: “Have patience...there will be lots of ‘Well, I didn't get to do that in school.’ Go into the partnership knowing you may have to do more ‘legwork’ in making sure they truly understand what they're doing.” Faculty also recommended building confidence by setting attainable goals and providing timely feedback that acknowledges accomplishments, as well as areas requiring continued work.

While preceptors should be supportive, some participants stressed the importance of holding pandemic graduates “accountable for learning and personal growth.” Several expressed that some students used their modified school experience as an excuse for not performing well on tests or assessments, and preceptors should “still have high expectations.” One participant elaborated: “Provide a learning environment that builds their confidence. That being said...do not spoon-feed them. They need to see the serious harm that can be caused if they are not well prepared for the nursing profession.”

Provide closer guidance and move slower

There were concerns for patient safety due to clinical inexperience. One participant suggested pandemic graduates “won't know what they don't know,” underscoring the need for preceptors to “observe their practices more closely.” Faculty warned not to assume pandemic graduates are as practice prepared as prior graduates, and direct observation of care abilities should occur “before giving independence.” Preceptors should “go with the orientee...don't assume they have routine tasks mastered. Again, make no assumptions. They will likely be stronger in theoretical [knowledge], but weaker in applying it.” Additionally, faculty felt pandemic graduates are aware that differences in their learning led to certain weaknesses; however, they may be hesitant to share this or may “try to hide their deficits.” Therefore, it was suggested to “build a trusting relationship. You are here to help, and they need to be honest about what they have and have not done, what they are and are not comfortable with in the clinical setting.” Inexperience and lack of confidence may also render pandemic graduates less assertive and uncomfortable to ask for help, and preceptors should normalize asking questions as important for safe care: “Reinforce the importance of asking questions. They will need to ask

questions to make up for lost clinical experiences. Knowing how to reach out for help will be imperative.”

Another recommendation to ensure patient safety and a successful transition was to “move slowly...they are going to need more time for hands-on patient care.” It may be helpful to “start them off slow...and work their way up to having all the patients.” Faculty felt pandemic graduates would benefit from “more time with preceptors to see how a nurse assesses the patient, identifies concerns, prioritizes nursing actions, delegates, and is able to provide holistic care.” Extending orientation may be helpful for some, and one participant warned: “Do not pass them if they are not ready.” At the same time, open and clear communication about expectations is important to ensure pandemic graduates understand the areas they need to work on.

Work on enhancing clinical reasoning

Faculty frequently named strategies preceptors can use to enhance clinical reasoning. Debriefing was recommended to assess thinking and build clinical reasoning. This can also be accomplished by asking “guiding questions... to think and resolve clinical problems.” Example questions were provided: “Why are you seeing that patient first? Your patient is exhibiting these signs and symptoms, what do you think you need to do first?” Questions the clinical instructor would have asked yet the opportunity was not there.” Another participant suggested: “When you ask them if they know something, and they say yes...ask them to elaborate...they might say yes in fear of being incorrect.” Next, pandemic graduates will likely be less confident with technical skills, making them more focused on completing these tasks than on “understanding WHY care is being delivered.” Thus, preceptors should not solely focus on skill execution, but also on helping make connections.

Theme 4: provide additional support

Overall, faculty believed pandemic graduates will have a “steep learning curve,” and this created concern for their wellbeing. They shared how upcoming graduates are feeling anxious and having self-doubts: “Many are aware of their clinical weaknesses and recognize they are entering practice environments they are not prepared for.” While feeling unprepared is not unique to pandemic graduates, it may be heightened due to their limited clinical experience: “Although new grads traditionally feel insecure, the limitations of clinical have added to perceptions of insufficiency.” Alarming, faculty felt pandemic graduates “will experience reality shock greater than we have seen in quite some time,” leading to recommendations to increase support.

Provide emotional support and mentorship

Pandemic graduates will need significant support and guidance, and if not received, “they may get burned out quickly once entering the profession.” One participant wrote: “I have observed individuals that graduated in May 2020...they are experiencing OVERLOAD on a daily basis. I worry burnout will be a higher risk earlier in their career. I'm concerned about the same thing for my May 2021 graduates.” Feeling overwhelmed may result from being “lost in a culture” they have little experience with, as well as from realizing the responsibilities that come with being the nurse. Further, the environments “they are entering are more stressful and will be very demanding for a new graduate.” Thus, pandemic graduates may experience a higher incidence of “stress and burnout due to lack of confidence in personal clinical practice, acuity of clients, and burnout of preceptors and other staff.” To help combat this, faculty recommended TTP programs include content on “self-care to prevent stress overload” and “techniques for combating burnout.” Additionally, pandemic graduates should have the “opportunity to interact with each other so they have a support group.” Finally, faculty frequently recommended creating or enhancing mentorship programs because pandemic graduates would benefit from having “good mentors who can be the ‘venting’ source they need as they work through the stress of overcoming barriers imposed by COVID.” Access to both a preceptor and a mentor could provide the

additional support needed, with the mentorship extending beyond the initial orientation time.

Expand learning opportunities

Pandemic graduates “will need a longer, more comprehensive orientation,” and faculty suggested clinical nurse educators “utilize more than one teaching method...there are a myriad of learners since they came from a hybrid environment.” They also cautioned against online delivery of TTP classes and instead suggested small group instruction led by clinical nurse educators who could help pandemic graduates recall prior knowledge and apply it to their specific patient population. Faculty also felt “critical thinking needs to be evaluated to make sure safe and competent care will be provided.” To both facilitate learning and evaluate progress, clinical nurse educators can use case studies and simulations with “scenarios focusing on patient status changes.” In addition, “skills days” could provide practice with technical skills that pandemic graduates may not have had the opportunity to perform in school. This would also provide opportunities for performance assessment which is important because “a lot of skill check-offs had to happen virtually” during the pandemic.

Extend time with preceptors

Although augmenting TTP program content was suggested, faculty overwhelmingly felt pandemic graduates need more time with preceptors to gain the hands-on clinical experience missed during school. They cautioned to “anticipate longer adjustment to autonomy and reliance on other nursing staff,” and strongly advised that pandemic graduates would benefit from an extended orientation. Because pandemic graduates “are going to require more time, more effort,” clinical nurse educators and managers should “select preceptors that are willing to teach and mentor.” Ideally, preceptors should be experienced nurses who can role model and build confidence. They also stressed providing “protected learning time” by ensuring a “lower patient care load until the preceptor feels they are truly prepared to care for additional patients.” Another participant wrote: “Extend their time. Worry less about how fast they can carry a full load of patients. Rather, how well can they safely manage a smaller number of patients...can they recognize the trends and use the assessment data they are collecting?” Moving at a slower pace and providing more time with a preceptor can help build confidence and ability, which will benefit patient outcomes. Thus, faculty advised to “give them that preceptor for a few extra weeks,” yet several feared the nursing workforce shortage would lead to pandemic graduates being taken off orientation too quickly: “They are not ready to care for patients like our typical graduates, and I am afraid due to the staff shortage they will not get an adequate amount of training” and “During nursing shortages, some hospitals tend to cut orientations short, and this is NOT the time to do this.” Faculty also warned that inadequate orientation time could “cause frustration and high turnover.” Conversely, a “longer orientation may decrease attrition rate.” This should be carefully considered by nurse managers and leaders due to the high demand for more nurses, with potential for a decrease in numbers of new nurses: “Our college is doing a good job of not advancing students if they do not meet expectations. With that, there will likely be a shortage of nurses as fewer are graduating/taking longer to graduate.”

Discussion

Due to the recency of the COVID-19 pandemic, few studies have examined the impact of learning restrictions on new nurses' preparedness for professional practice. New nurses entering the workforce in July 2020 reported being anxious and feeling less competent after experiencing only one semester with restricted clinical learning (Smith et al., 2021). Yet, the pandemic is ongoing, and students who have experienced even more disruption to their education are now graduating. Our study was conducted 1 year into the pandemic (Spring 2021), and the quantitative data collected from the 116 nurse faculty participants revealed an overall perception that pandemic graduates will be less

prepared for practice than prior graduates. In fact, faculty rated pandemic graduates significantly lower on all 36 Nursing Practice Readiness Tool items (all paired comparisons $p < 0.001$) (Powers et al., 2021). The faculty participants also responded to five open-ended questions to explore their perceptions of the impact of the pandemic on learning outcomes and recommendations for TTP programs. Data analysis revealed the four presented themes that build upon our quantitative results to provide specific recommendations for clinical nurses and leaders of TTP programs.

Faculty participants were overwhelmingly concerned about *Less Hands-On* learning due to restricted clinical experiences. Initially, clinical experiences were cancelled, changed to virtual simulations, or consisted of non-simulation activities. Although clinical learning had resumed for most participants in this study, hours were often reduced, care of certain patient populations was restricted, and absenteeism was an issue. Since the time of data collection, the pandemic has continued to disrupt nursing education (National Council of State Boards of Nursing, 2022), and it is likely that new nurses will continue to enter practice having had less opportunities to learn comprehensive nursing care within clinical settings. While simulation can provide experiential learning, faculty felt it is not as effective as working with actual patients and they indicated pandemic graduates may be “prepared theoretically but not clinically.” A meta-narrative review published pre-pandemic found no significant differences in students' knowledge, skills, or self-confidence when a portion of clinical hours were replaced with simulation. However, researchers concluded that because the amount of required clinical hours varies globally, with no minimum requirement in the US, more research is needed to determine the number of clinical hours needed “to ensure student proficiency and readiness for the workforce” (Roberts et al., 2019, p. 11).

Based on the loss of clinical learning time, faculty participants highlighted specific areas to augment in TTP programs, or *Transition-to-Practice Opportunities*. This theme confirms and builds upon our quantitative results showing the greatest score decreases for the technical skills, critical thinking, management of responsibilities, and communication subscales (Powers et al., 2021). In responses to open-ended questions, faculty repeatedly recommended focusing on enhancing new nurses' clinical reasoning. Two reasons emerged: difficulty in stimulating clinical reasoning online and fear that pandemic graduates will be so overwhelmed that they will not be able to take in or reason through the context of situations. This created concerns for patient safety, and faculty suggested an emphasis on building ability to recognize when and how to respond to patient problems. Faculty also stressed the need for practice with prioritizing and managing multiple patients as pandemic graduates likely had limited opportunities to do this in clinical settings and virtual simulations involve care of only one patient at a time. Next, pandemic graduates had fewer opportunities to interact with the interprofessional team and patients' families and to perform technical skills such as medication administration; thus, practice opportunities would be beneficial. Confirming these findings, our quantitative survey items that sustained the greatest mean score decreases were medication administration, communicating with physicians, prioritization, managing multiple responsibilities, and anticipating risk (Powers et al., 2021). It is important to note that even pre-pandemic, the need to focus on these specific areas was stressed (Rush et al., 2019; Spector et al., 2015). With the loss of clinical learning due to the pandemic, a heightened emphasis on these essential competencies is warranted.

To promote successful transition to professional practice, faculty participants emphasized the *Key Role of Preceptors* who will need to “cover the gap” resulting from less clinical time. Leaders of TTP programs should inform nurse preceptors of the educational changes that students experienced during the pandemic. Faculty advised preceptors to have patience and move slowly, providing close guidance to help develop pandemic graduates' abilities and confidence while also safeguarding patients. Moving slowly would also allow preceptors to focus on enhancing new nurses' clinical reasoning. Given the magnitude of the

preceptor role and the impact it has on new nurse success, it is vital that preceptors receive training and ongoing support (Chen et al., 2021; Quek & Shorey, 2018). Clinical nurse educators should consider using experiential learning to develop preceptor ability to coach clinical reasoning and provide support (Powers et al., 2019). Consistent with recommended best practices for precepting new nurses (Powers et al., 2019; Quek & Shorey, 2018; Su et al., 2021), our findings reaffirm specific strategies to highlight in preceptor training such as setting attainable goals, providing constructive feedback, and utilizing questions to encourage problem-solving.

Provide Additional Support underscores the importance of supporting pandemic graduates to prevent or mitigate transition shock, which is a long-standing problem for new nurses that leads to high rates of turnover (Brook et al., 2019). Unfortunately, faculty participants feared transition shock may be more prevalent among pandemic graduates who are likely to be stressed and experiencing overload. To combat a perceived heightened risk for burnout, it was recommended for TTP programs to add content on self-care, facilitate interaction among new nurses to provide peer support, and establish opportunities for mentoring (in addition to a preceptor) to provide continued support post-orientation. These strategies are consistent with findings of a recent review of best practices for TTP programs (Rush et al., 2019). Finally, faculty felt that because pandemic graduates' clinical learning was restricted while in school, their orientation time should be extended to provide more practice under the guidance of a preceptor. More time to gain experience can improve new nurses' confidence and ability, ultimately benefitting patient outcomes; however, faculty feared the workforce shortage would lead to the conclusion of pandemic graduates' orientation prior to them being fully prepared for independent practice. A challenge is that healthcare facilities are already balancing the current reality of heightened rates of nurse burnout due to the pandemic on top of the existing nursing shortage (Shah et al., 2021). This has created the perfect storm for experienced nurses to leave the bedside, resulting in newer nurses moving into the preceptor role sooner than previously experienced. In addition, healthcare facilities are confronting higher volumes of patients and increased acuity. Yet, research shows that longer orientations may improve new nurse transition, satisfaction, and retention, and reducing turnover can result in considerable cost savings for healthcare facilities (Rush et al., 2019). Based on our findings and the current situation, we recommend making preceptor training a priority and carefully examining new nurse readiness to come off orientation, keeping in mind that patient safety and nurse retention may be better if additional time is extended to pandemic graduates.

Recommendations for practice and academia

Our findings provide recommendations that clinical nurses and leaders can use to promote success of new nurses who graduate during the ongoing pandemic. Our quantitative (Powers et al., 2021) and qualitative findings identify specific competency areas to augment in TTP programs; namely clinical reasoning, prioritization, managing multiple patients, communication, and safe skill performance. Thematic analysis of responses to open-ended questions yielded two additional recommendations: train preceptors and provide additional support to pandemic graduates. Augmenting content alone is likely not sufficient as new nurses graduating during the pandemic have unique needs for continued clinical education and support.

As academic nursing education aims to prepare graduates for practice, our findings have implications for academia. Nursing education has long relied on in-person and hands-on learning (Michel et al., 2021; Wallace et al., 2021), and faculty participants overwhelmingly indicated the loss of hands-on clinical learning likely negatively affected the practice preparedness of pandemic graduates. This highlights the importance of planning for future scenarios that may require alterations to typical nursing education. It may be beneficial to create academia-practice partnerships to help ensure that students can continue their

clinical learning (Zerwic et al., 2021). This may be well-received by healthcare facilities who are dealing with the nursing shortage which will likely worsen as a recent survey by the American Nurses Foundation (2022) found that 52 % of nurse respondents are considering leaving their position, with insufficient staffing the primary reason. Forming partnerships is also important to help reduce the academia-practice gap through nurse faculty in academia and nurse leaders in practice working together to ensure new nurses are prepared to provide care in ever-evolving healthcare environments (Sebastian et al., 2018).

Research recommendations

Due to the recency of the COVID-19 pandemic, there is little research evidence on the needs of new nurses transitioning to practice during the pandemic. More studies are needed to examine new nurse readiness, experiences, and outcomes. By exploring nurse faculty perceptions, this study adds to the limited knowledge about pandemic graduates' readiness for practice and their anticipated needs for learning and support post-graduation. Findings may be helpful for augmenting or modifying TTP programs during the ongoing pandemic, and resultant outcomes such as new nurse performance, satisfaction, and psychological well-being (i.e., stress, burnout, etc.) should be evaluated. Retention rates, associated cost savings, and patient outcome data should also be assessed. It is also recommended to explore the experiences of preceptors, clinical nurse educators, and nurse managers who work to help pandemic graduates be successful.

Limitations

The sampling procedure is a limitation of this study. Our sample was not diverse with respect to race/ethnicity or gender, mirroring US nurse faculty demographics (American Association of Colleges of Nursing, 2017). Diverse faculty in other geographic regions may have experienced different pandemic-related educational changes potentially leading to different recommendations. Self-selection bias is another potential limitation. Faculty who opted to participate may have done so because they had strong feelings about teaching during the pandemic and the impact of educational changes on learners and graduates. Finally, data was collected via online survey; therefore, we were not able to further explore participant responses to open-ended questions.

Conclusion

The COVID-19 pandemic caused substantial changes in prelicensure nursing education, most notably a loss of clinical learning experiences. As the pandemic is continuing to evolve, it is reasonable to assume that disruptions to nursing students' education may continue and that the pandemic could have long-lasting effects on the way in which students learn, potentially affecting the practice preparedness of new nurses. To address the academia-practice gap that widened during the pandemic, it is important for nurses in academia and clinical leadership to partner in identifying needs of new nurses entering the workforce. By exploring the perceptions and recommendations of nurse faculty, we provide strategies that clinical nurses leading TTP programs can use to facilitate pandemic graduates' success: provide ample hands-on learning with a trained preceptor and employ multiple strategies to enhance support. Additionally, preceptors and clinical nurse educators can focus on enhancing clinical reasoning, managing multiple patients, and building communication and skill performance abilities.

New nurse attrition is a global problem that has garnered much attention due to financial consequences to healthcare facilities. Despite identification of strategies to improve the transition period, high rates of new nurse turnover have persisted. With the current nursing workforce shortage that is worsening due to pandemic-related burnout of existing nurses, it is even more important to ensure the success of new nurses who will be joining the workforce. Our findings indicate that nurse

faculty, who work closely with students, fear that transition shock will be even more pronounced for pandemic graduates because their learning was affected by the pandemic, and they will be entering stressful work environments. It is imperative for healthcare facilities to proactively put strategies in place to support new nurses whose learning is affected by the ongoing pandemic. Change is also needed on a broader level, and the pandemic's effect on the nursing workforce may prove to be a catalyst to advancing policy to provide needed support and resources for nursing education and practice. Namely, efforts to promote academia-practice partnerships, strengthen TTP programs, and improve workplace conditions (such as staffing levels) may help alleviate the workforce shortage. Dedicating attention to new nurses' practice transition is imperative to maintain and rebuild the nursing workforce to meet the needs of patients, families, and communities.

CRedit authorship contribution statement

All authors participated in study conceptualization/design, thematic analysis, and manuscript writing.

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Declaration of competing interest

None.

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