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COVID-19 pandemic impact on experiences and perceptions of nurse graduates

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ABSTRACT

Background: Transitioning from education to practice is stressful for new nurses and those entering new roles and can lead to workforce attrition and burnout. This dynamic is likely complicated when graduates are transitioning to practice during a pandemic.
Purpose: The purpose of this study was to describe recent nurse graduates' perceptions of the impact of the COVID-19 pandemic on their transition from education to practice.
Methods: We conducted an online survey of BSN, RN-BSN, and DNP students who graduated between December 2019 and April 2020 (n = 82), including demographics, employment information, and free-response questions about the impact of the pandemic on their transition experiences, post-graduation plans, and perceptions of nursing. We used a qualitative descriptive approach to content analysis to synthesize and summarize the data.
Results: Participants expressed three overarching concerns: 1) altered plans such as difficulty finding employment; 2) logistical, system-related stressors including licensing delays and chaotic onboarding; and 3) feeling pride in profession despite perceiving ambivalence in public discourse.
Conclusion: COVID-19 exacerbated challenges often experienced by new graduates. Common stressors, intensified during the pandemic, could exert long-term effects on the workforce. Educators and healthcare organizations must work to ensure nursing graduates receive the necessary support for a successful transition.

Introduction

The transition from formal education to nursing practice is stressful for novice nurses and those moving into new advanced practice roles (Barnes, 2015; Lin et al., 2020) in the best of times, much less during a pandemic. Transition-related stress can lead to burnout and increased nursing turnover for registered nurses (RN) and advanced practice registered nurses (APRN) (Jewell, 2013; Labrague & McEnroe-Petitte, 2018). New graduates attribute this stress to heavy workloads, lack of mentoring, and feeling unprepared for practice, especially when caring for patients with complex medical conditions (Ebrahimi et al., 2016; Sargent & Olmedo, 2013). Novice RNs cite lateral workplace violence as a compounding factor, while APRNs note concerns with role ambiguity, identity confusion, and loss of confidence (Faraz, 2019; Mounayar & Cox, 2021; Parker et al., 2014). At this time, little is known about the impact of the COVID-19 pandemic on the experiences of students who have the added stress of transitioning from education to practice as either new nurses or nurses taking on new professional roles in new settings. With over 500,000 nurses approaching retirement, it is essential to understand and address the impact of the COVID-19 pandemic on the experiences of graduates who transitioned to professional nursing careers, and new nursing roles, during the pandemic.

Transition stress for RN graduates and newly licensed RNs

The stresses of transition from nursing education to practice have the highest impact in the first year yet may have long-lasting effects on nurses' careers (Dyess & Sherman, 2009; Jewell, 2013). According to Jewell (2013), the first three months of entry into practice, when new nurses are trying to understand the expectation of their new role and do their job well, is the most stressful time in their careers. Many nurses identify reality shock, or the conflict between their expectations and the

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realities of nursing, as a key factor contributing to the stress of transition (Kramer et al., 2011; Martin, 2011). Recent reports indicate that up to 48% of novice RNs leave their position within the first year of practice due to increased stress, primarily attributed to the gap between education and practice (Labrague & McEnroe-Petitte, 2018). Similarly, Dillon et al. (2016) reported that 52% of APRNs left their first position within the first two years of practice. It is difficult at this time to gauge what impact the COVID-19 pandemic will have on this situation.

Transition issues for experienced RNs and nurses graduating with advanced degrees

The literature also provides a considerable amount of evidence and discussion about new nurses' attrition. However, fewer published analyses were available about nursing graduates transitioning from RN to advanced practice roles. Similar to registered nurses, Dillon et al. (2016) and Faraz (2016) suggested that APRNs experience increased stress during the transition. They advocated the importance of mentoring and preceptorship during transition to APRN positions, relying on social support from mentors, peers, and other new APRNs, to facilitate adjustment to their new roles. Unlike RN programs, few APRN programs or organizations support additional training after graduation through residency programs, and it is not clear how residency programs impact new APRNs' transitions. Additionally, new APRNs struggle with role ambiguity, preventing them from practicing to the full extent of their license resulting in a significant impact on autonomy and job satisfaction (Faraz, 2016). The COVID-19 pandemic likely aggravates the challenges new advanced practice nurses experience when changing professional roles or settings.

Unknown impact of COVID-19 pandemic on new graduates

Health systems within the United States (US) are still navigating the COVID-19 pandemic. Therefore, we do not yet know the extent of the pandemic's impact on both short and longer-term outcomes transitioning from education to practice during the pandemic. However, recent reports suggest that effects on the nursing workforce may be dramatic (Ali et al., 2020; Hall, 2020). The COVID-19 pandemic has exacerbated issues related to the transition to new nursing roles. Novice nurses face challenges such as changes to nursing education and training, shifting roles, high nurse-to-patient ratios, and continually evolving policies and procedures in addition to increased strain from new nursing roles (Maben & Bridges, 2020). Novice nurses are also contending with the impact of increased workloads, less on-the-job training, and increased risk for COVID-19 exposure on their physical and psychological well-being (Ehrlich et al., 2020; Fernandez et al., 2020).

Changes to the structure of the healthcare system during the COVID-19 pandemic, particularly those affecting clinical education partnerships between schools and health systems, have also had a significant impact on the transition experience of recent graduates (García-Martín et al., 2021; Jackson et al., 2020). Challenges and stressors in nursing education have included disruptions to student clinical placements, modified classroom education, unexpected financial stress, concerns about delays in graduation, and even student turnover from nursing programs (Dewart et al., 2020; Dos Santos, 2020). Nursing practice areas experiencing low censuses initiated hiring freezes, which impacted students' ability to find work in areas of interest or little time to prepare as jobs were offered on short notice. Student nurses who were working (Doctor of Nurse Practice (DNP) and RN to Bachelor of Science in Nursing (BSN) graduates) were also affected by furloughs or expectations to work in areas without adequate training or expertise (Gabler et al., 2020). Disruptions in recent nursing graduates' transition and experience resulted in a gap in practical knowledge and a struggle to adjust to clinical workflows, environments, and cultures (Wong et al., 2018).

The existing evidence delineates the adverse effects of role transition-related stressors for new nurse graduates and potential risks associated with unmet support needs. Given this, it is reasonable to anticipate that the COVID-19 pandemic has introduced new stressors while also exacerbating the long-standing issues noted here. More knowledge is needed to better understand the potential short- and long-term effects of the COVID-19 pandemic on nurses transitioning to practice or new practice roles during the pandemic.

Study purpose

The purpose of this study was to describe recent BSN, RN-BSN, and DNP nurse graduates' perceptions of the impact of the COVID-19 pandemic on their transition from education to practice from December 2019 to June 2020, during the initial period of the pandemic.

Methods

Design

This qualitative descriptive study employed content analysis (Kim et al., 2017) to analyze participant data generated via open-ended text items on an online survey. We conducted all activities with Institutional Review Board review and approval via a standing exemption umbrella protocol developed for a graduate course on qualitative health science research methods. We addressed the rigor and trustworthiness of the study and analysis of the data by using team consensus as a core element of the study design, analysis, and reporting (Noble & Smith, 2015). Additionally, throughout the process, we practiced reflexivity and kept a clear and transparent description of our research process (Noble & Smith, 2015). Finally, we stayed close to the data by referring to it continually and using direct quotations to demonstrate themes (Noble & Smith, 2015).

Setting

The study was conducted in a long-standing accredited college of nursing located in the western US that offers baccalaureate, RN-BSN, and DNP degrees that prepare graduates for careers in clinical practice, education, and research. The DNP program includes eight nurse practitioner (NP) clinical tracks: family primary care (FNP), psychiatric/mental health (PMHNP), adult/gerontology acute care (AGACNP), post-MS-to-DNP (MS-DNP), women's health (WHNP), neonatal (NNP), nurse-midwifery/women's health (NMWHNP), and adult/gerontology primary care track (AGPCNP). These programs offer traditional in-person courses as well as hybrid, online, and distance learning options with synchronous and asynchronous delivery. In addition, student clinical rotation training is contracted with healthcare settings throughout the college's region and distance learning locations, as indicated for the student specialty, with supplemental training offered at the nursing college's advanced simulation training center. During the pandemic, the college taught didactic courses virtually, but students were still able to participate in some clinical rotations.

Sampling and recruitment

We recruited from a purposive sample of Fall 2019 and Spring 2020 graduates among four programs: traditional BSN, RN-BSN, BS-DNP, and MS-DNP because these graduates were among the first to transition out of their education programs during the pandemic. We invited graduates from all eight DNP specialty tracks to participate (see Table 1 for response rate). Our sample included participants who were new-graduate nurses at the onset of the pandemic and nursing students who completed their programs during the pandemic and were in the process of obtaining licensure and finding work. We excluded non-clinical MS and Ph.D. program graduates because they were less likely to be entering clinical patient-care roles.

Table 1
Participant characteristics.

Demographic characteristics	All participants n = 82	Traditional BSN graduates n = 50	RN-BSN graduates n = 9	DNP graduates n = 23
	Mean ± SD Range	Mean ± SD Range	Mean ± SD Range	Mean ± SD Range
Age (years)	28.6 ± 7.6 21–54	24.3 ± 3.3 21–35	32.6 ± 5.4 25–41	36.6 ± 8.3 28–54
Length of employment (years)[a]	3.6 ± 6.0 0–31	0.14 ± 0.3 0–1	2.1 ± 1.3 0–4	9.6 ± 7.4 0–31

Demographic characteristics	All participants n = 82	Traditional BSN graduates n = 50	RN-BSN graduates n = 9	DNP graduates n = 23
	n (%)	n (%)	n (%)	n (%)
Gender (female)	68 (84.0)	44 (88.0)	5 (55.6)	19 (86.4)
Hispanic (yes)	6 (7.4)	5 (10.0)	0	1 (4.5)
Race (white)	69 (85.2)	42 (84.0)	8 (88.9)	19 (86.4)
Employment (employed)	63 (76.8)	37 (74.0)	8 (88.9)	18 (78.3)
Job role (clinical)	66 (80.5)	43 (86.0)	7 (77.8)	16 (69.6)
Setting (hospital)	66 (80.5)	42 (84.0)	7 (77.8)	17 (73.9)
DNP				
FNP[b]				7 (30.4)
PMHNP				5 (21.7)
AGACNP				3 (13.0)
MS-DNP Org. Leadership				3 (13.0)
WHNP				3 (13.0)
NNP				1 (4.3)
NMWHNP				1 (4.3)

[a] Exact employment questions asked: Are you currently employed in nursing? Describe your current level of employment in nursing? How many years have you worked as a nurse?

[b] Family primary care (FNP), psychiatric/mental health (PMHNP), adult/gerontology acute care (AGACNP), post-MS-to-DNP (MS-DNP), women's health (WHNP), neonatal (NNP), nurse-midwifery/women's health (NMWHNP); there were no responses from the adult/gerontology primary care track (AGPCNP).

We received contact information for eligible participants from the college's office of student services, which routinely collects and retains background information from interested graduates. We sent an email with a link to the survey to all eligible participants (N = 278). We did not have an a-priori target number of participants for our sample but instead used a purposive sampling approach to increase the response rate. The email outlined the study's purpose and aims, stated that participation was voluntary and that response to the survey constituted consent to participate. We provided the contact information of the research team for any questions or concerns. Potential participants could indicate whether they wanted to be entered into a drawing for a $50 electronic gift card as an incentive to participate.

Data collection

We designed our survey by first generating a list of questions centered on eliciting participants' perspectives and experiences related to transitioning from education to practice during the pandemic. Since we intended to focus on the effects of the pandemic on new graduates, we purposefully did not design questions to sensitize respondents to the concept of transition. Instead, we wanted to capture and center new graduates' perceptions of the effects of the pandemic on their experiences without pre-framing these as typical transition-related issues. Through group consensus, we narrowed this list to three questions and identified relevant demographic and employment items. Next, we asked 14 nurses independent from the study to complete our survey and provide feedback about the list of questions. Using their feedback and team consensus, we finalized our research questions and the survey instrument, including demographic and employment items.

We designed an electronic, online-accessible survey using Qualtrics (2020) software. A secure link to the online survey was included in the recruitment email on June 12, 2020. The survey assessed select demographic information, including age, sex, race, employment status – including years of experience as a nurse – and the program of study. We also asked participants to respond to three open-ended questions to determine how the pandemic was impacting new graduates. Our questions were: 1) How has the COVID-19 pandemic impacted you as a nurse? 2) How has your perception of nursing changed during the last year? 3) How has the COVID-19 pandemic influenced your post-graduation plans? There was no restriction on the length of written responses; participants could write as much or as little as they wanted in response to each of these three questions.

We sent two reminder emails to participants who did not respond to the first email. We sent the first reminder email on June 15, 2020, and the second on June 19, 2020. The study was closed to enrollment on June 23, 2020.

Data analysis

We anonymized the survey data by removing all identifiable participant information such as email addresses and names before exporting it from Qualtrics to an Excel file. We also redacted potentially identifying information from the three open-ended questions, including names of cities, states, hospitals, clinics, and people. Participant demographic, program, and employment data were summarized using descriptive statistics.

The team employed a descriptive qualitative approach (Kim et al., 2017) to content analysis of participants' responses to each open-ended question. Due to the nature of our study, we chose to do a content rather than a thematic analysis. Both content analysis and thematic analysis are commonly used in qualitative descriptive research. However, content analysis allowed us to describe, compare, and synthesize frequently occurring topics appearing in participant responses while remaining close to the data at hand (Doyle et al., 2020). Initially, participants' text responses to each of the three open-ended questions were entered into an Excel file for coding. Then, all co-authors reviewed the data multiple times.

We employed an approach to coding that integrated both deductive and inductive coding in complementary phases that facilitated the development of qualitative descriptions of the data (Kim et al., 2017). First, the team developed a set of deductive, structural codes (Saldaña, 2016), informed by a literature review of related research and initial reading of the survey data. We based the initial deductive codes on nursing applicants' perceptions of the nursing profession, as Glerean et al. (2019) described. Codes included characteristics of a nurse, content of nursing work, nature of nursing work, and career in nursing. We used the subcategories for each code to develop definitions of the codes, which were validated through team discussion and consensus. To test this initial codebook, four team members (SC, DC, SH, KM) all coded the same portions of the data individually. They recorded how well these codes fit the data and whether refinements or additional codes were needed. Finally, the team reviewed and discussed this trial coding and consolidated similar or redundant codes.

Second, we conducted our first round of coding individually, using the initial, revised codebook. During the first round of coding, we allowed double-coding and coded everything that did not fit into one of the ten codes as “other.” We counted the frequency with which the teams assigned each initial code to the responses. We then inductively coded the data in the “other” category to further develop and refine the codebook. During this round of coding, we realized the need for an emotional code and a code for “no impact,” which we added for the second round of coding. The emotional code included the emotions or

feelings expressed by nurses, including fear, anxiety, isolation, loss, and lack of safety. Subcodes for emotions were defined within the codebook. We coded "no impact" if participants stated the pandemic did not impact their job or future plans.

Third, four team members worked in pairs (TEAM 1: KM & SH; TEAM 2: DC & SC) to code all the participants' response data. We divided participants' responses to all three questions in half, and each team of two coded 41 sets of responses. Each pair compared codes and resolved discrepancies through team consensus.

Fourth, we examined the frequency with which each code was used and the amount of data assigned to each code. We noted that a subset of codes was assigned to a large portion of the data while other codes occurred less frequently and covered fewer data. We also noted that deductive codes used for the initial analysis were prevalent in two of the three questions. However, the responses varied based on the question, affording a more robust view of the issues. Therefore, we chose to focus the next phase of coding on aggregating the data within the three most frequently used codes for each question (Tables 2–4). Working in the same pairs and going line by line, team members inductively coded these aggregated data to label the content represented. Again, pairs compared the coding and resolved discrepancies through team discussion and consensus. We then aggregated the data within each question for the top three codes and performed inductive coding on the compiled responses from the most-used codes. Fifth, for the remaining codes that resulted in less compiled data, team members wrote descriptive summaries that were reviewed, discussed, and revised by all team members. This iterative approach to coding, review, and analysis allowed us to generate descriptions of salient, predominant topics and content in participants' response data.

Table 2
Question 1: How has the COVID-19 pandemic impacted you as a nurse?

Topic categories[a]	n (%)	Sample responses
Altered transition to new nursing roles	42 (17)	"Prolonged board certification and licensing"; "It made it more difficult to get a job/license/test because everywhere was shut [down] or on hiring freeze."
Adaptation in response to change	38 (15)	"I worked in a Med/Surg role full time. When all non emergent surgeries were cancelled the census at my m/s job dropped significantly, from around 12–15 patients to 2–4 patients for the entire unit. I was being placed on call once per week."
Lost opportunities in education and training	27 (11)	"My educational classes and trainings that were provided by my employer have been postponed."
Indirect nursing task-prep	19 (7)	"The main things I have noticed are how much more tired I am at the end of the shift since having to wear goggles and a mask."
Financial impact	14 (6)	"I lost out on one job that lost funding."
Anxiety	14 (6)	"Lots of anxiety" "Caused more anxiety about bringing sickness home to my family"
Pride in profession	12 (5)	"It has helped me be an asset to my community."
Descriptions of altered/lost family/visitor support for patients	10 (4)	"Patients without families."; "People rely on friends, family, spouses, to get through difficult times and not being able to have them has definitely been the biggest impact for me and my patients."
COVID-19 policy	10 (4)	"We are now required to wear PPE at all times and there are more rules in place. No visitors, no community food or drink is allowed"

[a] Categories are not mutually exclusive.

Table 3
Question 2: How has your perception of nursing changed during the last year?

Topic categories[a]	n (%)	Sample responses
Pride in profession	18 (13)	"I couldn't have made a better decision about going into nursing. Especially in times like these."
Altruism	17 (12)	"With hospitals in other parts of the country being overwhelmed, I have heard of nurses stepping outside their comfort zone, putting their health at risk, and caring for the sickest, most contagious patients. I've seen the phrase 'Healthcare Hero' all over, and I think it is an accurate statement."
Public perception of nursing	17 (12)	"The importance of nurses as advocates for patients and public health."
Safety concerns	16 (12)	"…I hope our organizations protect us properly from the occupational hazards (COVID, aggressive patients)"
Adaptation in response to change	15 (11)	"…profession that adapts to change and rises to the challenge."

[a] Categories are not mutually exclusive.

Table 4
Question 3: How has the COVID-19 pandemic influenced your post-graduation plans?

Topic categories[a]	n (%)	Sample responses
Altered transition to new nursing roles	54 (32)	"It changed the job I am taking — but that is okay."; "I applied for the CDC and got approved for an interview, but they're real busy and I haven't heard back in 3 months."
Postponed and canceled personal plans	24 (15)	"Celebrations have been put on hold. We canceled vacations."
Lost opportunities in education and training	14 (9)	"I have really noticed it's impact when looking at jobs, because most of the hospital jobs for new grads involve a training program and many of those have been delayed or even canceled."

[a] Categories are not mutually exclusive.

Results

Participant demographics

Eighty-two graduates completed the survey for a response rate of 29.5% of all eligible graduates. See Table 1 for participant characteristics. Of respondents, 61% were graduates of the traditional BSN program (n = 50), 11% were RN-BSN program graduates (n = 9), and 28% were DNP graduates (n = 23). Most participants (80.5%, n = 66) were employed in a clinical role in a hospital setting at the time of the survey.

Content analysis: key categories

Analysis of the data yielded seven topic categories that cut across the three questions: 1) altered transitions to new nursing roles, 2) adaptation in response to change, 3) lost opportunities in education and training, 4) pride in profession, 5) altruism, 6) public perception of nursing, and 7) postponed and canceled plans. Tables 2–4 represent the categorized responses by question to the three open-ended research questions.

Impact of COVID-19 pandemic on nursing graduates' professional transitions

The three most frequently occurring topics in participants' responses to how the pandemic was affecting them as nurses were: 1) altered transition to new nursing roles (n = 42, 17%), 2) adaptation in response to change (n = 38, 15%), and 3) lost opportunities in education and training (n = 27, 11%).

Altered transition to new nursing roles: unmet professional expectations and needs. When participants were asked how COVID-19 impacted them as

nurses, the majority described difficulty finding a job, licensing and certification delays, and changes to on-the-job training. First, participants described how difficult it was to find a job after graduation. Sixteen participants specifically mentioned that their difficulty finding a job was due to hiring freezes. In contrast, a few participants commented on how lucky they felt to have procured a job before or during COVID-19. DNP graduates were more likely than BSNs to experience mismatched expectations in career trajectory as expressed through deviations in their career path and changes in the expected duties of their jobs. One DNP participant summarized, "Can't progress in my career." Alternatively, BSN graduates cited hiring freezes and delays in starting new positions more frequently than DNPs. One traditional BSN graduate said that COVID-19 "Made it impossible for me to get hired as an external applicant, causing me to lose my dream job." Some participants (both BSN and DNP) chose to accept job offers in units or locations they did not want to secure employment. Other participants expressed that they thought getting a job would be relatively easy, but the reality was much different. RN-BSN graduates cited low census and not getting the jobs they wanted as impacts of COVID-19 more often than not being able to get a job.

Second, licensing and certification delays occurred for many participants because testing sites were closed or open at reduced capacity due to the pandemic. Additionally, there was a lack of personnel at the licensing agencies, making communication about licensing timelines sparse or nonexistent. More BSN graduates mentioned difficulty getting licensed (n = 5) than DNP graduates (n = 2) in response to question one. As one traditional BSN participant explained, "The biggest impact I have faced related to COVID-19 is delays with licensure via DOPL [Utah's Department of Public Licensing] and testing via Pearsonvue." Many participants expressed frustration at the delay in testing and licensing, and several stated how licensing delays impacted their job prospects and starting dates. A traditional BSN graduate wrote, "I passed my NCLEX [National Council Licensure Examination] and submitted all of my things to DOPL for my license but have not been given a license yet. Therefore, my start date…has been pushed back repeatedly. Each week when Friday rolls around and I still haven't been sent my license, my start date is pushed back an entire week."

Lastly, participants explained how COVID-19 impacted their on-the-job training, either positively or negatively. With COVID-19-related cancelations of elective surgeries and clinic appointments, the lower-than-normal census in some clinical settings impacted on-the-job training. For some, the reduction in patient load led to a better orientation as they could focus on learning their job without the added stress of a busy unit. One traditional BSN graduate explained that because of the low census, "I was able to have a much less chaotic orientation into my position than I was expecting. I was able to get the hang of being a new nurse." For others, the decrease in patient volume meant less training as they were called off shifts or spent more time performing non-nursing tasks. One traditional BSN participant stated, "It has been tough getting my feet under me…It's been a slow start and I feel like I'm not as confident as I should be. It sucks having to play the 'new nurse' card so far into my job."

Adaptation in response to change. Participants described the need to adapt as an essential skill during the pandemic. Overall, participants reported changes to hospital policy, staffing, and nursing roles, which impacted their workloads, responsibilities, and adaptation to nursing practice.

Participants reported that policies frequently changed during the pandemic. These changes often impacted their workflow or patient care, with some nurses struggling to adapt and stay abreast of the changing information. As described by one RN-BSN participant, "Everything has changed a bit. It is sometimes hard to keep up with all the changes that have happened."

Novice nurses reported that changes in hospital policy impacted their transition to nursing. While some nurses expressed satisfaction with their orientation, others expressed concern with their ability to adapt to the nursing role. For example, one traditional BSN graduate wrote, "It has been a weird transition to taking care of more sick patients when there were no elective surgeries. I was very grateful to have clinical experience prior to graduating because I feel that I would not have been prepared." In addition, new nurses were also required to adapt to changing roles, policies, and expectations. The following statement demonstrates the flux experienced by one traditional BSN participant as the hospital adapted to patient needs.

> When we became the designated COVID unit in April, I was called off 1–2 times a week for the next month and a half, because our patient census was so low… Recently, the hospital made a separate unit for COVID-19 positive patients which our unit staffs as well, so I am taking care of these patients about once a week. It has been challenging for me to adapt to these changes as a new nurse, and it was especially difficult during March and April.

Lost opportunities in professional education and training. In their responses to question one about the impact of COVID-19 on them as nurses, participants described changes in their educational trajectory, including canceled milestones and clinical instructions, as well as canceled or postponed training for their new roles and future educational goals.

Participants attributed the lost opportunities in education and training to inadequate, canceled, or postponed training and residency programs, as well as canceled orientation. For 2020 graduates, this included canceled capstone projects during the pandemic. Factors influencing the altered opportunities were low census, canceled clinicals and shifts, limited patient interactions, and frequent changes to on-the-job training and nursing roles. In turn, these lost opportunities resulted in feelings of uncertainty about participants' abilities to do their jobs, develop competency, and acquire sufficient training for successful onboarding to their new jobs. In addition, inadequate training created a prolonged learning curve and increased feelings of disappointment. However, the delays and low census were a welcomed opportunity for a few participants to support learning and onboarding without feeling pressured and overwhelmed.

The COVID-19 pandemic also impacted participants' future educational plans. As one RN-BSN participant noted, "I thought I would be back in school studying epidemiology but that isn't a thing." Another RN-BSN participant wrote, "I was in a residency program which I haven't attended in 3 months, so I am missing education that I really wanted." Additionally, participants alluded to the need to adjust their learning style to accommodate the new trend and transition to online patient care, clinical training, and education. Online learning, however, created logistical challenges accompanied by worry, fear, and uncertainty. A traditional BSN participant stated, "It cut a lot of the training that we were supposed to finish in capstone, so it was disappointing to have to have taken such a long break from real clinical experience."

Impact of COVID-19 pandemic on graduates' perceptions of the nursing profession

The three topics most often raised by participants about how their perceptions of the nursing profession changed during the year were 1) pride in profession (n = 18, 13%), 2) altruism (n = 17, 12%), and 3) public perception of nursing (n = 17, 12%).

Pride in the nursing profession. Participants commented on the role of nurses, describing it as "vital," "important," "essential," and "valuable." Many participants expressed gratitude and pride to be nurses and explained that their pride in the profession was strengthened during the pandemic. One traditional BSN participant described it in the following way, "I always [k]new that nursing was such an instrumental part of society, but the pandemic has highlighted this even more. I am very

proud to say that I am a nurse."

Additionally, some participants commented on the importance of nurses in direct patient care and their influence on the patient. "I love how much nurses work, and how much they work directly with patients. I think that as nurses, we have a lot of, if not the most, ability to impact patients' lives," wrote one traditional BSN participant. A DNP participant explained, "I have always thought that nurses play an incredible role in the healthcare team and go above and beyond for patients."

Altruism. One category captured in how the pandemic impacted new nurses' perceptions of the profession was the altruistic nature of nursing. The participants described the duty and calling of nursing, expressing gratitude and hesitation to respond to this call of serving as a nurse during the pandemic. One traditional BSN participant noted, "I am grateful to be in a position to help others during this uncertain time." Some saw nursing during a pandemic as their duty, as explained by another traditional BSN graduate, "As nurses we're taught to be flexible and it's our job to deal with/care for/treat those with viral based diseases." An RN-BSN participant agreed, "Mostly it emphasized that we have a duty to the community to be there for them." The need to support the community through heroic nursing services was coupled with comments about the perils nurses face when fulfilling their duty. This dichotomy was described by a traditional BSN graduate nurse who wrote, "With hospitals in other parts of the country being overwhelmed, I have heard of nurses stepping outside their comfort zone, putting their health at risk, and caring for the sickest, most contagious patients. I've seen the phrase 'Healthcare Hero' all over, and I think it is an accurate statement." The risk of exposure to COVID-19 challenged the ability of a nurse to be altruistic. One RN-BSN participant summed this up by saying, "This experience has made me very hesitant to 'answer the call' during a pandemic."

Public perception of nursing. Participants described both the positive and negative public perceptions about their role as nurses and the working conditions during the pandemic. Most participants believed that nurses' critical role during a pandemic reaffirmed the public's perception that nurses are highly trusted, appreciated, and needed members of the health care team. As one traditional BSN participant described, "…I think it will only enforce the idea that nursing is the most trusted profession." Additionally, responses indicated that graduates felt that the public perceives "[t]he importance of nurses as advocates for patients and public health," as one traditional BSN participant wrote. However, participants also noted that working conditions during the pandemic gave the impression that nurses were not always respected. Participants described feeling isolated and rejected due to their working situation and their high level of exposure to those infected with the COVID-19 disease. A traditional BSN respondent provided a notable account of this experience: "During this pandemic it has become clear that nurses are dispensable." Some participants expressed a negative change in their perceptions, mostly due to not feeling protected or appreciated by administration or feeling underutilized as a nurse.

Impact of COVID-19 pandemic on personal plans

When describing how the pandemic changed their post-graduation plans, respondents raised these issues most often: 1) altered transition to new nursing roles (n = 54, 32%), 2) postponed and canceled personal plans (n = 24, 15%), and 3) lost opportunities in education and training (n = 14, 9%).

Altered transition to new nursing roles: professional disappointments have a personal impact. This category was one of the top categories in both questions one and three. When participants were asked how COVID-19 influenced their post-graduation plans, common responses described difficulties finding a job, including obtaining a different job than they wanted and delays in starting a new job (n = 31, 33%), and challenges getting licensed (n = 14, 17%). One traditional BSN graduate wrote, "Friends who graduated in May are having difficulty finding places who will hire new grads during the pandemic and their NCLEX has been pushed back." Postponements in licensing resulted in delayed start dates. One traditional BSN participant stated, "it has pushed back my start date as a nurse by multiple weeks so that has been discouraging. I have had a job lined up since March but am unable to start because I haven't been given a license yet." Some respondents thought it would be easy to find a nursing job after graduation, but that was not the case. One traditional BSN graduate explained, "Essentially, I thought I would get a job relatively easily, but it has been quite the opposite case."

Postponed and canceled personal plans. Participants identified celebrations and personal plans that were no longer possible due to COVID-19. For many, this included canceling graduation ceremonies or vacations to celebrate their academic achievements both with their families and their nursing cohort. Ten participants stated they had canceled planned vacations, and four mentioned a lack of a graduation ceremony. As one RN-BSN participant shared, "I just didn't get to walk with the only college graduation I will ever walk in, which is a bummer but it's life."

Lost opportunities in education and training. Participants also described how canceled job training/residency affected their vision for their professional development trajectory and future education plans. Online courses and clinicals made learning more difficult for some participants and made others choose different future paths. One traditional BSN participant chose to continue studying at an in-state school rather than out of state because of online classes. Another traditional BSN chose not to pursue additional schooling during the pandemic because of the online medium. Participants also showed uncertainty over future training and career trajectory options because of the lack of opportunities during the pandemic. One traditional BSN graduate stated, "I was hoping to start building up my resume early this year so that I can apply to grad school as soon as possible. However, with the pandemic and quarantine, it has been somewhat of a struggle to start plans to build my resume."

Discussion

Overall, we found the pandemic exacerbated the stress of the transition from education to new nursing roles. Graduates noted loss of transition programs, increased workloads, and a mismatch between their expectations and the nursing role. Despite these issues, participants maintained a sense of purpose and pride in their role as a nurse.

The stress of transitioning to a new nursing role is well documented and often associated with disconnects between new nurses' expectations and the reality of the role (Labrague & McEnroe-Petitte, 2018). Existing research suggests that nurse residency programs decrease stress by bridging the gap between education and practice and supporting new graduate nurses through transition (Van Camp & Chappy, 2017). The nurses in our study expressed added stress as the pandemic eroded programs, such as nurse residencies, designed to breach this gap and decrease the stress of transition. The nurses in our sample also expressed concerns with increased workloads and changing policies and expectations during their transition due to COVID-19. Flinkman and Salanterä (2015) found that increased workloads cause ethical issues for novice nurses and, in some cases, create a rift between the nurses' expectations of the profession and reality.

Similarly, Ten Hoeve et al. (2018) found that the first year of nursing practice is a year of growth, and novice nurses need to experience confidence in their abilities to progress. Feeling a lack of control due to increased workload, too much responsibility, and continuously shifting policies and roles due to the COVID-19 pandemic increases stress during the transition. This lack of control can lead to less autonomy, which is a key indicator of workplace satisfaction in both novice and advanced practice nurses.

The loss of a bedside nurse impacts both the economy and healthcare delivery. Currently, the estimated cost for the loss of a bedside nurse is $50,000 (Asber, 2019). To decrease the theory-to-practice gap and improve nurse retention, the Institute of Medicine recommended implementing nurse residency programs (Cline et al., 2017). These programs build on the skills acquired during nursing clinicals and capstone education to provide novice nurses with additional clinical training and professional development (Cline et al., 2017). Hospitals implementing nurse residency programs have increased novice nurse retention to greater than 70%, with some well-established programs reaching retention rates between 90 and 100% (Asber, 2019). However, by not providing these programs during the COVID-19 pandemic, nurse retention is likely to decrease.

The nurses in our sample experienced a mismatch between their post-graduation expectations, plans, and the pandemic reality. Many new nurses experience reality shock when transitioning to nursing practice, citing a lack of confidence and experience, which leads to a sense of rejection for the new graduate (Gardiner & Sheen, 2016; Graf et al., 2020; Martin, 2011). Similarly, advanced practice nurses experience a disconnect as they transition to practice, which is further complicated by role confusion (Barnes, 2015; Moran & Nairn, 2018). In our study, both advanced practice and new graduate nurses transitioning during the COVID-19 pandemic experienced disruptions to their clinical rotations, which may further widen the gap between education and practice and increase the experience of reality shock. Additionally, the nurses we surveyed were often unable to find a position in the specialty area where they trained, further impacting their clinical skills, work satisfaction, and confidence in a new position. Boamah and Laschinger (2016) found that burnout and intent to leave increase in novice nurses who have a poor person-job match. Nurses accepting jobs outside of their desired area due to the pandemic may perpetuate person-job difficulties increasing burnout and turnover.

We found that most of our sample retained their feelings of altruism and pride in the nursing profession. According to Van der Wath and van Wyk (2020), altruism is often associated with nursing students and experienced nurses, citing it as a reason for entering the profession. They also noted that nurses use altruism as a moral compass that contributes to job satisfaction. Moloney et al. (2018) found that nurses are likely to overlook factors that would increase stress and burnout. However, with the additional stress of COVID-19, new nurses may be unable to overlook normal transition-related stress.

Interestingly, some participants reported that the current pandemic had “no impact” on them. We used a “no impact” code to label these responses. It was one of the higher frequency codes for question two about participants' perceptions of the profession (n = 29, 21%), and question three about the impact on personal post-graduation plans (n = 41, 25%), but not for the first question about the impact on their transition from school to practice. However, we chose not to include this code in our frequency analysis for two reasons. First, this study aimed to explore the *impact* of the COVID-19 pandemic on recent nursing graduates. Second, although some participants stated that COVID-19 had no impact, many then described the effects the pandemic has had on them, and these data were captured by assigning other coinciding codes. For example, even though it was a more frequently used code, only six participants explicitly stated that the pandemic had no impact on their perceptions of the nursing profession or their post-graduation personal plans without identifying an actual impact. The remaining participants added a qualifier to their lack of change, such as an enhanced personal or public appreciation for the profession.

Finally, the recurring topics and categories derived from the participants' responses can be framed in terms of the stress process and perceived and anticipated support changes. For example, the challenges and negative pandemic-related transition experiences participants reported can be understood as expressions of unexpected needs related to the pandemic and unmet needs that typify transition to practice in general. Similarly, their expressions of altruism and pride in their profession despite facing disappointment and difficulty can be seen as useful coping and capacity for resilience. This capacity is likely not a limitless resource but one that needs to be nurtured and protected in the coming months and years as we discover the extent of the impact of the current pandemic on professional education and practice.

Many healthcare facilities canceled their clinical rotation offerings with the onset of the COVID-19 pandemic in March of 2020, leading the college to offer additional simulation, student-instructor role-play, and other alternative learning approaches for clinical practice. Many health systems responding to crises engendered by the pandemic will continue to struggle to provide adequate and timely professional and social support for new nurses and nurses changing roles. Nurses who would typically provide mentorship for new colleagues are stretched thin as they manage increasing patient loads, acuity, and the uncertainties of present and future clinical practice during the pandemic and its aftermath. Risks associated with this situation include perennial ones we already know about—stress, burnout, attrition—as well as others not yet clearly defined. Nursing education programs across the US are well-positioned to identify and address new graduates' support needs. Nursing educators have the knowledge and resources needed to partner with the health care systems and organizations that hire our graduates to create and sustain interventions to ensure that these essential professionals in our health care system receive the support they need.

Strengths and limitations

One of the strengths of this study is that it is, to the best of our knowledge, one of the only studies examining the impact of the COVID-19 pandemic on recent nursing graduates' experience. Further, this study was timely as we surveyed recent graduates during the uncertain and challenging times of the beginning of the pandemic. Finally, this study also focused on recent graduates from graduate and undergraduate nursing programs, a novel approach.

The following limitations apply to our study. First, the RN to BSN group sample within the undergraduate sample was small (n = 9) compared to the traditional BSN (n = 50), making it difficult to generalize from the small RN-BSN cohort in our study to this population as a whole. Second, we were not aware of how many of the DNP graduates were working as RNs post-graduation and had not transitioned to new roles, which may have impacted the responses to our questions. Third, this study was conducted in conjunction with a qualitative methods course limiting the time for data collection and extending the data collection period may have increased the response rate. Additionally, we had a low number of COVID-19 cases at that time. Extending the time or conducting the survey at multiple time points may have captured a more complete picture of the impact of the pandemic on nurses. It is also worth noting that we collected data from only one institution, a public university academic health science center in the western United States. Lastly, the low response rate was a limitation and was influenced further by the lack of accurate data on recent graduates' email addresses. It is possible that some potential graduates did not receive the recruitment email, and therefore, were not included in the study.

Recommendations for nursing education

The findings from this study suggest several implications for nursing education. First, we found the stress of a pandemic exacerbated the existing stress of the transition to practice for nurses; specifically, nurses were frustrated by the loss of educational programs to assist with the transition. In the future, nursing educators need to prepare for unforeseen changes in the education environment to enable successful transitions during unexpected circumstances. Further, educators should partner with employers to ensure transitioning nurses receive the continued education and mentoring needed during the first year of their career, which could be accomplished through additional residency programs.

Conclusions

The stress of transition from nursing education to practice for new graduates, both RN and APRN, can contribute to burnout, turnover, and attrition. In 2020, the COVID-19 pandemic intensified the difficulties new graduates face when transitioning to a new practice. For this study, we surveyed recent undergraduate and doctoral graduates using an online assessment that included demographic information and three open-ended questions. The free-response questions asked about the pandemic's impact on graduates' nursing careers, post-graduation plans, and perceptions of the nursing profession. Participant responses highlighted the following categories: 1) negative impacts on post-graduation plans such as difficulty finding employment, 2) difficult transitions to new roles, including licensing delays and chaotic onboarding, and 3) positive perceptions of nursing and pride in the profession. Our findings suggest that the COVID-19 pandemic has exacerbated already difficult nursing transitions, contributing to further losses of new graduate nurses from the profession.

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Declaration of competing interest

None.

References

Ali, S., Noreen, S., & Farooq, I. (2020). COVID-19 and healthcare workers in Pakistan: Are we losing this fight? *Journal of Medical Sciences, 28*(2), 186–188. https://jmedsci.com/index.php/Jmedsci/article/view/892.

Asber, S. R. (2019). Retention outcomes of new graduate nurse residency programs: An integrative review. *Journal of Nursing Administration, 49*(9), 430–435. https://doi.org/10.1097/nna.0000000000000780.

Barnes, H. (2015). Exploring the factors that influence nurse practitioner role transition. *The Journal for Nurse Practitioners, 11*(2), 178–183. https://doi.org/10.1016/j.nurpra.2014.11.004.

Boamah, S. A., & Laschinger, H. (2016). The influence of areas of worklife fit and work-life interference on burnout and turnover intentions among new graduate nurses. *Journal of Nursing Management, 24*(2), E164–E174. https://doi.org/10.1111/jonm.12318.

Cline, D., La Frentz, K., Fellman, B., Summers, B., & Brassil, K. (2017). Longitudinal outcomes of an institutionally developed nurse residency program. *Journal of Nursing Administration, 47*(7–8), 384–390. https://doi.org/10.1097/NNA.0000000000000500.

Dewart, G., Corcoran, L., Thirsk, L., & Petrovic, K. (2020). Nursing education in a pandemic: Academic challenges in response to COVID-19. *Nurse Education Today, 92*, 104471. https://doi.org/10.1016/j.nedt.2020.104471.

Dillon, D. L., Dolansky, M. A., Casey, K., & Kelley, C. (2016). Factors related to successful transition to practice for acute care nurse practitioners. *AACN Advanced Critical Care, 27*(2), 173–182. https://doi.org/10.4037/aacnacc2016619.

Dos Santos, L. M. (2020). How does COVID-19 pandemic influence the sense of belonging and decision-making process of nursing students: The study of nursing students' experiences. *International Journal of Environmental Research and Public Health, 17*(15), 5603. https://doi.org/10.3390/ijerph17155603.

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing, 25*(5), 443–455. https://doi.org/10.1177/1744987119880234.

Dyess, S. M., & Sherman, R. O. (2009). The first year of practice: New graduate nurses' transition and learning needs. *The Journal of Continuing Education in Nursing, 40*(9), 403–410. https://doi.org/10.3928/00220124-20090824-03.

Ebrahimi, H., Hassankhani, H., Negarandeh, R., Azizi, A., & Gillespie, M. (2016). Barriers to support for new graduated nurses in clinical settings: A qualitative study. *Nurse Education Today, 37*, 184–188. https://doi.org/10.1016/j.nedt.2015.11.008.

Ehrlich, H., McKenney, M., & Elkbuli, A. (2020). Protecting our healthcare workers during the COVID-19 pandemic. *The American Journal of Emergency Medicine, 38*(7), 1527–1528. https://doi.org/10.1016/j.ajem.2020.04.024.

Faraz, A. (2016). Novice nurse practitioner workforce transition into primary care: A literature review. *Western Journal of Nursing Research, 38*(11), 1531–1545. https://doi.org/10.1177/0193945916649587.

Faraz, A. (2019). Facilitators and barriers to the novice nurse practitioner workforce transition in primary care. *Journal of the American Association of Nurse Practitioners, 31*(6), 364–370. https://doi.org/10.1097/JXX.0000000000000158.

Fernandez, R., Lord, H., Halcomb, E., Moxham, L., Middleton, R., Alananzeh, I., & Ellwood, L. (2020). Implications for COVID-19: A systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. *International Journal of Nursing Studies, 111*, 103637. https://doi.org/10.1016/j.ijnurstu.2020.103637.

Flinkman, M., & Salanterä, S. (2015). Early career experiences and perceptions - A qualitative exploration of the turnover of young registered nurses and intention to leave the nursing profession in Finland. *Journal of Nursing Management, 23*(8), 1050–1057. https://doi.org/10.1111/jonm.12251.

Gabler, J., Raabe, T., & Röhrl, K. (2020). People meet people: A microlevel approach to predicting the effect of policies on the spread of COVID-19. In *Institute of Labor Economics, IZA discussion paper, 13899*. https://covid-19.iza.org/publications/dp13899/.

García-Martín, M., Roman, P., Rodriguez-Arrastia, M., Diaz-Cortes, M. D. M., Soriano-Martin, P. J., & Ropero-Padilla, C. (2021). Novice nurse's transitioning to emergency nurse during COVID-19 pandemic: A qualitative study. *Journal of Nursing Management, 29*(2), 258–267. https://doi.org/10.1111/jonm.13148.

Gardiner, I., & Sheen, J. (2016). Graduate nurse experiences of support: A review. *Nurse Education Today, 40*, 7–12. https://doi.org/10.1016/j.nedt.2016.01.016.

Glerean, N., Hupli, M., Talman, K., & Haavisto, E. (2019). Perception of nursing profession - Focus group interview among applicants to nursing education. *Scandinavian Journal of Caring Sciences, 33*(2), 390–399. https://doi.org/10.1111/scs.12635.

Graf, A. C., Jacob, E., Twigg, D., & Nattabi, B. (2020). Contemporary nursing graduates' transition to practice: A critical review of transition models. *Journal of Clinical Nursing, 29*(15–16), 3097–3107. https://doi.org/10.1111/jocn.15234.

Hall, H. (2020). The effect of the COVID-19 pandemic on healthcare workers' mental health. *Journal of the American Academy of PAs, 33*(7), 45–48. https://doi.org/10.1097/01.JAA.0000669772.78848.8c.

Jackson, D., Bradbury-Jones, C., Baptiste, D., Gelling, L., Morin, K., Neville, S., & Smith, G. D. (2020). Life in the pandemic: Some reflections on nursing in the context of COVID-19. *Journal of Clinical Nursing, 29*(13–14), 2041–2043. https://doi.org/10.1111/jocn.15257.

Jewell, A. (2013). Supporting the novice nurse to fly: A literature review. *Nurse Education in Practice, 13*(4), 323–327. https://doi.org/10.1016/j.nepr.2013.04.006.

Kim, H., Sefcik, J. S., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing & Health, 40*(1), 23–42. https://doi.org/10.1002/nur.21768.

Kramer, M., Brewer, B. B., & Maguire, P. (2011). Impact of healthy work environments on new graduate nurses' environmental reality shock. *Western Journal of Nursing Research, 35*(3), 348–383. https://doi.org/10.1177/0193945911403939.

Labrague, L. J., & McEnroe-Petitte, D. M. (2018). Job stress in new nurses during the transition period: An integrative review. *International Nursing Review, 65*(4), 491–504. https://doi.org/10.1111/inr.12425.

Lin, Y., Tseng, C., Wang, M., Wu, S. V., Jane, S., & Chien, L. (2020). Anxiety and work stress among newly employed nurses during the first year of a residency programme: A longitudinal study. *Journal of Nursing Management, 28*(7), 1598–1606. https://doi.org/10.1111/jonm.13114.

Maben, J., & Bridges, J. (2020). Covid-19: Supporting nurses' psychological and mental health. *Journal of Clinical Nursing, 29*(15–16), 2742–2750. https://doi.org/10.1111/jocn.15307.

Martin, K. (2011). Newly registered nurses' experience in the first year of practice: A phenomenological study. *International Journal for Human Caring, 15*(2), 21–27. https://doi.org/10.20467/1091-5710.15.2.21.

Moloney, W., Boxall, P., Parsons, M., & Cheung, G. (2018). Factors predicting registered nurses' intentions to leave their organization and profession: A job demands-resources framework. *Journal of Advanced Nursing, 74*(4), 864–875. https://doi.org/10.1111/jan.13497.

Moran, G. M., & Nairn, S. (2018). How does role transition affect the experience of trainee Advanced Clinical Practitioners: Qualitative evidence synthesis. *Journal of Advanced Nursing, 74*(2), 251–262. https://doi.org/10.1111/jan.13446.

Mounayar, J., & Cox, M. (2021). Nurse practitioner post-graduate residency program: Best practice. *The Journal for Nurse Practitioners, 17*(4), 453–457. https://doi.org/10.1016/j.nurpra.2020.10.023.

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence-Based Nursing, 18*(2), 34–35. https://doi.org/10.1136/eb-2015-102054.

Parker, V., Giles, M., Lantry, G., & McMillan, M. (2014). New graduate nurses' experiences in their first year of practice (2014). *Nurse Education Today, 34*(1), 150–156. https://doi.org/10.1016/j.nedt.2012.07.003.

Qualtrics. (2020). Retrieved July 31, 2020 from https://www.qualtrics.com/.

Saldaña, J. (2016). *Coding manual for qualitative researchers* (3rd ed.). SAGE Publications Inc.

Sargent, L., & Olmedo, M. (2013). Meeting the needs of new-graduate nurse practitioners: A model to support transition. *Journal of Nursing Administration, 43*(11), 603–610. https://doi.org/10.1097/01.NNA.0000434506.77052.d2.

Ten Hoeve, Y., Kunnen, S., Brouwer, J., & Roodbol, P. F. (2018). The voice of nurses: Novice nurses' first experiences in a clinical setting. A longitudinal diary study. *Journal of Clinical Nursing, 27*(7–8), e1612–e1626. https://doi.org/10.1111/jocn.14307.

Van Camp, J., & Chappy, S. (2017). The effectiveness of nurse residency programs on retention: A systematic review. *AORN Journal, 106*(2), 128–144. https://doi.org/10.1016/j.aorn.2017.06.003.

Van der Wath, A., & van Wyk, N. (2020). A hermeneutic literature review to conceptualise altruism as a value in nursing. *Scandinavian Journal of Caring Sciences, 34*(3), 575–584. https://doi.org/10.1111/scs.12771.

Wong, S. W., Che, W. S. W., Cheng, M. T. C., Cheung, C. K., Cheung, T. Y. J., Lee, K. Y., … Yip, S. L. (2018). Challenges of fresh nursing graduates during their transition

period. *Journal of Nursing Education and Practice, 8*(6), 30–37. https://doi.org/10.5430/jnep.v8n6p30.